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MANUAL

OF

INDUSTRIAL AND COMMERCIAL INTERCOURSE

BETWEEN

THE UNITED STATES

AND

SPANISH AMERICA

GIVING THE LATEST AND MOST CORRECT
INFORMATION REGARDING THE

RESOURCES, COMMERCE, INDUSTRIES, LAWS AND REGULATIONS
CONCERNING MERCANTILE AFFAIRS, MINES, AGRICULTURE,
LAND TITLES AND COLONIZATION, RAILWAY AND
STEAMER TRAFFIC, TARIFFS AND CUSTOMS
CLEARANCES, POSTAL REGULATIONS,
CURRENCY AND EXCHANGE
ETC., ETC., ETC.

OF

MEXICO, CENTRAL AMERICA, WEST INDIES, COLOMBIA, VENEZUELA
GUIANA, ECUADOR, PERU, BRAZIL, BOLIVIA, CHILI, PARAGUAY,
URUGUAY AND ARGENTINE CONFEDERATION,

WITH SOME DESCRIPTION OF UNITED STATES COMMODITIES AND
MANUFACTURES SUITABLE FOR USE AND CONSUMPTION IN THESE LOCALITIES

AND

ABSTRACTS OF THE LAWS

OF THE SPANISH-AMERICAN COUNTRIES

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FOR THE YEAR 1889

EDITED BY THOMAS SAVAGE

FOR TWENTY YEARS IN THE UNITED STATES CONSULAR SERVICE
IN SPANISH-AMERICAN COUNTRIES

SAN FRANCISCO, CALIFORNIA:
THE BANCROFT COMPANY
1889

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PREFACE.

THE SPANISH AMERICAN MANUAL IS A HAND-BOOK OF INDUSTRIAL and Commercial Intercourse between the United States and Spanish America, with Abstracts of the Laws, the Civil, Criminal, and Commercial Codes of Mexico, and the several Governments of Central and South America; giving the latest and most correct information regarding the Resources, Commerce, Industries, Laws and Regulations regarding Mercantile Affairs, Mines, Agriculture, Land Titles and Colonization, Railway and Steamer traffic, Tariffs and Customs clearances, Postal Regulations, Currency and Exchange, etc., of Mexico, Central America, West Indies, Colombia, Venezuela, Guiana, Ecuador, Perú, Brazil, Bolivia, Chili, Paraguay, Uruguay and Argentine Confederation, with some description of U. S. Commodities and Manufactures suitable for use and consumption in these countries.

Here are two vast regions lying side by side, one being the richest in practically undeveloped resources in the civilized world, while the other is well advanced in all the useful arts and manufactures. It would seem that between the respective inhabitants there should be the freest, fullest, and most profitable intercourse, profitable to both, intellectually as well as pecuniarily. But how is it? These nations are almost unknown to each other, both being better acquainted with Europe, and doing more business with people on the other side of the Atlantic than with each other.

It is one of the objects of this work to bring into nearer relationship the business and professional men of these two great sections, each equal to a continent in area and importance. This book gives the Industrial Resources, shows the present state and possibilities of Manufacturing, explains Business Methods, presents the several Governments with Abstracts of their Laws, together with a vast fund of absolutely new and original Miscellaneous Information regarding Spanish America, which will prove of the highest advantage to merchants, manufacturers, and professional men.

It is essentially a Buyers and Sellers' Guide; the lawyers' book of reference; the tourists companion, and a Hand-book indispensable to all business and professional men having relations with these countries, not only as between the United States and Spanish America, but as between the several Spanish American states themselves.

It fills an actual want, and is destined to exercise a powerful and permanent influence.

Connected with, and as a part of this publication, is a Bureau of Correspondence, through which information of any kind may be obtained, translations made, and the interests of patrons specially promoted.

100094

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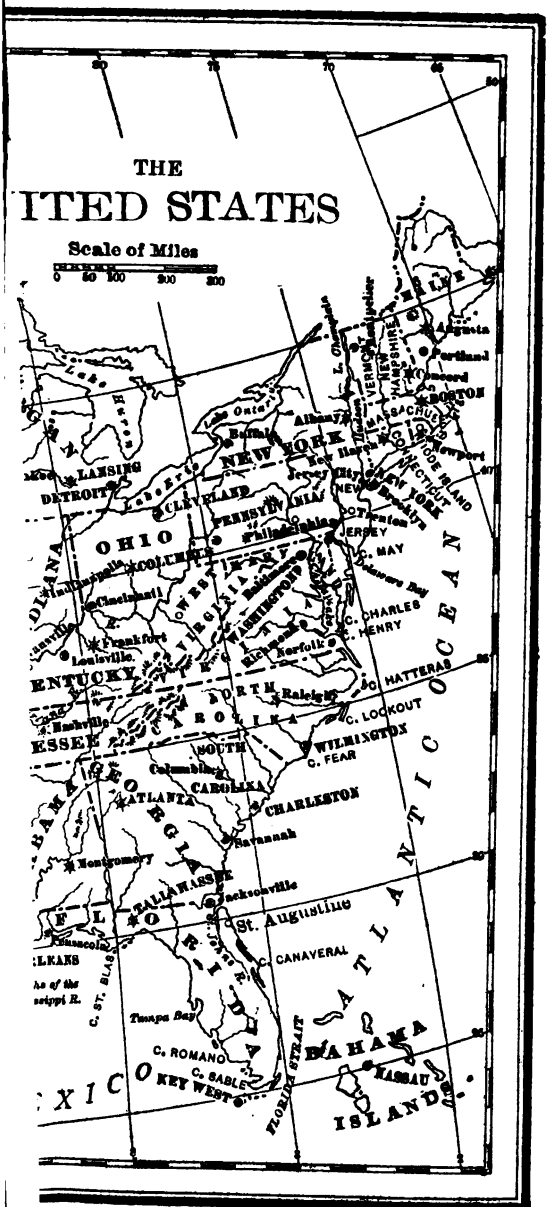
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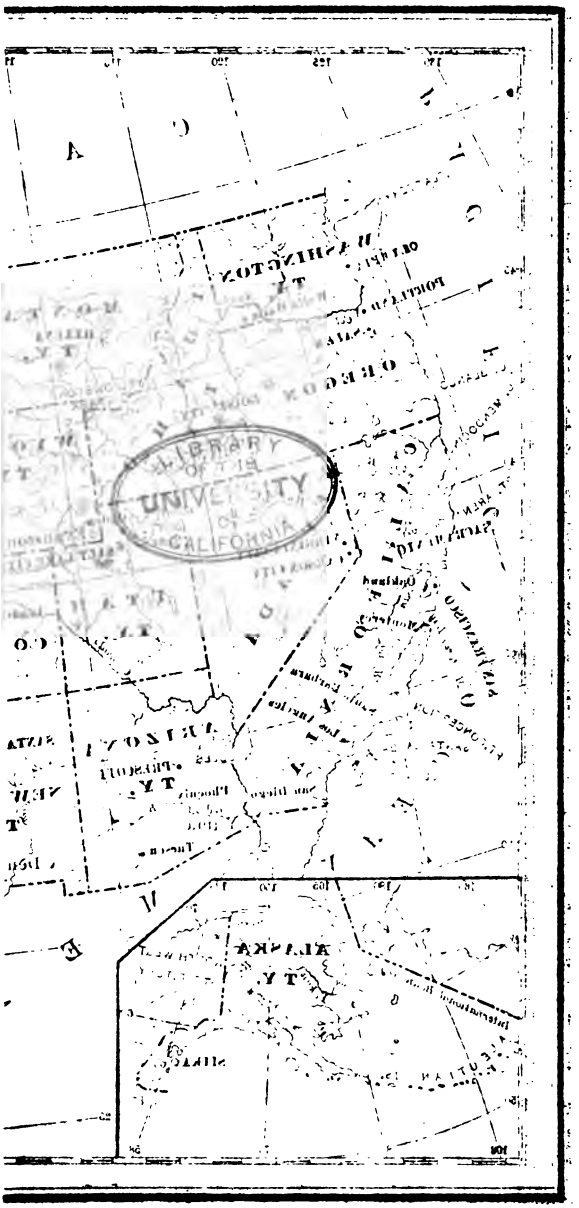
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I. RESOURCES.

CONFIGURATIONS AND PHYSICAL FEATURES.

The term Spanish America, as herein employed, comprises all that portion of North and South America lying south of the United States, notwithstanding there are spots in this vast area which were never firmly held by Spain, and where the Spanish language is not now spoken. The term United States, when used alone, signifies the United States of America, or the Anglo-North-American confederation; when applied to any of the Hispano-American confederations of the south, as the United States of Mexico, the United States of Venezuela, etc., it is so expressed.

Thus, including the two areas which it is the purpose of this work to bring into nearer commercial and industrial relationship, we have all of one continent and a large part of the other, yet united by a vertebra of mountains, and washed on either side by the same oceans. Indeed, this continental backbone extends throughout the entire length of the two Americas, from Alaska to Patagonia, though bearing different names for different sections, as the Rocky Mountains of the United States, the Sierra Madre of Mexico, and the Cordillera or Andean range of South America.

Compared with the recorded experiences of the Old World, the New World is still new; in particular, Spanish America, which, during the three centuries of colonial existence was kept like an infant in its cradle, hidden away, and guarded by its jealous mother, not from affection, but for purposes of money and domination. It is only from the early part of the present century, after having declared their independence from European rule, that the republics of America can date a national existence; since which time they have had not only to achieve political and social liberty, but to start themselves out in a career of material progress and prosperity, the brilliance of whose future no one can conceive.

In order that these countries, separated as hitherto they have been from each other by the barriers of race, language, and the absence of proper facilities for intercommunication, may more thoroughly understand each other and be able intelligently to profit by the information given, the several sections of the work will be taken up and treated in their natural order, one line of details following another in proper sequence. Thus, after a view of the physical features, the climates and soils, we come to production and its possibilities, to agriculture and mines, these leading on to manufactures, commerce, and the rest.

The total estimated area of the countries embraced in this work, according to the best authorities, amounts to 11,925,017 square miles, as appears in the following table.

		Sq. miles.
NORTH AMERICA.		
United States (including 577,390 of Alaska)		3,634,797
Mexico		742,143
CENTRAL AMERICAN REPUBLICS.		
Guatemala	46,800	
Salvador	7,225	
Honduras	46,460	
Nicaragua	49,500	
Costa Rica	26,040	175,965
SOUTH AMERICA.		
Colombia		504,778
Venezuela		439,120
Ecuador		248,372
Brazil		3,275,826
Peru		480,000
Chili		293,970
Bolivia		500,870
Argentine Republic		1,204,496
Uruguay		72,117
Paraguay		91,970
ISLAND OF ST. DOMINGO.		
Dominican Republic	19,626	
Hayti	10,204	29,830
Total area of independent nations		11,693,807
SPANISH POSSESSIONS.		
Island of Cuba	43,220	
Island of Porto Rico	3,550	46,770
BRITISH POSSESSIONS.		
Bermudas Islands	24	
Bahamas	3,021	
Belize, or British Honduras	13,500	
Jamaica and dependencies	6,900	
Leeward Islands	738	
Trinidad	1,755	
Barbadoes	166	
Windward Islands	610	
British Guiana (South America)	76,000	102,714
FRENCH POSSESSIONS.		
Guadeloupe and dependencies	625	
Martinique	381	
French Guiana (South America)	40,140	41,146
DUTCH POSSESSIONS.		
Curaçoa	210	
Aruba	69	
St. Martin	17	
Bonaire	95	
St. Eustache	7	
Saba	5	
Surinam or Dutch Guiana	40,060	40,463
DANISH POSSESSIONS.		
Santa Cruz	84	
St. Thomas	33	117
Total		11,925,017

Mexico is a plateau in form like a cornucopia, whose narrow end tapers to the southeast, with the convex side facing the Pacific and the concave the Atlantic, the general inclination being toward the north. The cordilleras are mostly escarpments of this plateau, which descends abruptly toward the Atlantic, and by well-marked terraces toward the Pacific. The southern central table-land of Anáhuac keeps up its mean altitude of 7,000 to 8,000 feet almost everywhere to thirty or forty miles of the Atlantic.

The most continuous range is the Sierra Madre of the Pacific (10,000 feet), and parallel to it is the Giganta, or Lower California range (3,000 feet), which, however, falls abruptly eastward.

The cordillera of Anáhuac, surrounding the valleys of Mexico and Puebla, is the most important of the central cross ridges. It is supposed to culminate with Popocatepetl (17,853 ft.) and Ixtaccihuatl (15,705 ft.). But these two volcanoes really belong to a more recent system running from sea to sea in an almost straight line from east to west, and nearly at right angles to the main axis of the central table-land. East of Popocatepetl are Citlaltepetl, or Peak of Orizaba (17,176 ft.), and San Martin or Tuxtla (9,708 ft.) on the coast south of Vera Cruz, to which correspond on the west Jorullo (4,000 ft.) in Michoacan, Colima (12,800 ft.), near the coast in Jalisco, and the Revillagigedo volcanic group in the Pacific south of this line. Nearly parallel are the sierras of Guerrero, and south of the isthmus of Tehuantepec those of Oajaca and Soconusco.

Proceeding south we find in Central America the chain more compact and running at a short distance from the Pacific coast line. On the slopes and summits are fine table-lands, some extensive, and all of them temperate and fertile. In fact, there is no portion of the earth presenting a greater diversity of level on an equal extent of surface than Central America. Most of the highest peaks are volcanoes, and some thirty or more vents are active. Earthquakes, recorded from the earliest historic times, have been frequent and disastrous. In crossing from one continent to the other the range drops in places to an altitude of not more than 300 feet, constituting the isthmus of Panamá.

In Colombia, the northernmost country of South America, we find a surface more equally diversified than any other in South America; that is to say, more equally divided into mountains, valleys, and plains. Near the borders of Ecuador the Andes break into two branches nearly parallel; between them is the great Magdalena valley. The most easterly of the two branches is the cordillera of Cundimarca. Between the central and coast ranges is the Cáuca valley, and west of the latter is the Chocó mineral region. The eastern cordillera is also known as the Suma Paz; the central is the Quindiu, and the western the Chocó. This last named has but few passes, and they are difficult ones. The eastern branch is formed of table-lands lying from 8,000 to 14,000 feet above the sea level. In the eastern range, in about 5° N., perpetual snow is reached; the highest peak of it is the Tolima, rising 18,020 feet, and the loftiest summit of the Andes north of the Equator.

The isthmus of Panama has extensive valleys and plains of very distinct character. The *llanos* or plains extending to the Orinoco are either swamps or sunburnt deserts. The west coast, and a great part of the Isthmus, being covered with dense impenetrable forests are not as yet well known. There is every possible evidence that Atrato valley was at one time a large estuary of the sea, whose waves broke at the very foot of the Cordilleras.

Nearly 110,000 square miles of Venezuela are covered by mountains formed in two separate systems. The first is a ramification of the Colombian Andes, which bifurcate at the Knot of Pamplona, one branch running first N. and then NE., and ending at Cape Chichibacoa, in the NE. extremity of the Goajira peninsula. It is called Sierra de Ocaña from Pamplona to the Venezuelan frontier, and thence to Goajira, Sierra de Peripa; this range nowhere rises higher than 5,000 feet; in the peninsula it is known as the Oca mountains. The other chief branch, comprising the alpine region proper, sinks on the right bank of the Cojedes river south of Barquisimeto, to abruptly rise again on the opposite bank of the river toward Puerto Cabello; whence under the name of Venezuela coast chain it extends to the promontory of Paria, with a mean altitude of about 4,800 feet; the two highest peaks, Silla de Carácas and Picacho de Naiguatá, attaining respectively the elevation of 8,547 feet and 9,100 feet. The Mérida mountains, with a mean elevation of 6,000 feet, comprise 31 summits which exceed 10,000 feet, the loftiest being the two peaks of the Sierra Nevada, 15,066 and 15,000 feet, respectively.

The second system is that of the Parima mountains, extending over the southern division of the Orinoco basin. To this system belong several summits, viz: Sierra de Pacaraima, Parima (highest summit, (7,608 ft.), Maraguaca (8,151 ft.), Maigualida, Chuchivero, Guachimacari, Cuneva, Guayapri, Sipapo, Cerbatana, Rinocote, Carapo, Imataca, and Upata. The Duida is an isolated peak (8,823 ft.) between the Parima and the upper Orinoco.

Earthquakes have often visited the country, causing terrible havoc. The destruction of Carácas, a city then of 50,000 inhabitants, on the 26th of March, 1812, was one of the most disastrous events recorded in history.

About one-fourth of Ecuador is of tide-water level, and the other three-fourths of various heights, embracing hills, mountains and mountain valleys, the Chimborazo being upwards of 21,400 feet high. There are twenty summits of more than 10,000 feet in height. To the east are endless forests and plains intersected by rivers, lagoons, and marshes, and interrupted by mountain ranges which stretch from the Andes obliquely to the Amazon. To the west are extensive forests; the mountains are less lofty, the rivers of lesser magnitude. The center swells into two cordilleras separated by a valley 300 miles long, with snow-clad peaks which rank among the loftiest of the world. The Andes enter Ecuador at Loja, where they form themselves into two chains parallel to each other and to the coast, traverse the state NNE. until the chains unite at Pasto, near the northern boundary. Transverse ridges link the two chains together at two places, thus dividing the

large valley into three, which are respectively called, commencing at the south, Cuenca, Alausé, and Ambato, and Quito. One of these ridges, the Alto de Chisinche is situated about lat. 0° 4′ S., with an elevation of only a few hundred feet above the surrounding plain, and forms the Ecuadorian watershed between the Atlantic and Pacific. The elevation of the valleys varies from 8,500 to 14,500, that of Quito having a mean height of 9,540 feet. The mountains on the border of the southern valley do not attain the altitude of perpetual snow. The chief summits are in the Cordillera Oriental, though the Chimborazo is in the Occidental. The noted peaks in the western cordillera are: Iliniza (17,380 feet), Pichincha (15,924 feet), Carihuairazo (15,920 feet), Chiles (15,960 feet), and Cumbal (about 1,500 feet above the snowline—a little above 14,000 feet). The chief summits of the eastern cordillera are the Cayambi (19,813 feet), which is the only volcano immediately under the equator, Sara Urcu or Supai Urcu (17,276 feet), thirty-five miles east of Quito and forming part of the Guamani ridge, Antisana, thirty-five miles southeast of Quito, (about 19,200 feet), Cotopaxi (about 19,500 feet), Llanganate (18,640 feet), Tunguaragua (16,425 feet), Alfar (17,126 feet), and Sangay (16,138 feet). Many of these are volcanoes, a few of them extinct and others active. Spurs, detached from the western chain, intersect the region lying between the Andes and the Pacific, gradually sinking into low hills as they approach the coast, excepting the part close to the Rio de Guayaquil, which is an extensive and very low chain. Swamps are common in this portion of the country. The level sections of the lower country are doubtless a water formation. Ecuador, on both sides of the Andes, abounds in rivers and smaller streams.

The surface of Brazil is divided into the higher regions or plateaus, ridges and broad open valleys occupying the whole country south of the parallel of Cape San Roque, and the vast lowland plain of the Amazon extending inland to the base of the Andes of Perú, Ecuador, and Colombia, and rising again in the extreme north to the ranges forming the boundary with Venezuela and Guiana.

The highest and most important mountains of Brazil are the Serras do Mantiqueira and do Espinhaço. There is also a range of high plateaus, named collectively Serra das Vertentes, or range of the watersheds.

How level are the northern lowlands may be understood by the fact that the banks of the river Amazon, where it enters Brazil at Tabatinga, more than 1,500 miles in a direct line from the sea, are not over 250 feet above the ocean.

Coral reefs occur at irregular intervals along the northern Brazilian coast from the Abrolhos islets.

No volcanoes have been discovered in Brazil. There are warm springs in several provinces; also alkaline springs. The numerous hot wells with somewhat sulphurous water, near Caldas in Minas Geraes, are at an elevation of about 600 feet above the level of the ocean. Remarkable among the physical peculiarities of the Argentine Republic are her pampas or plains, which extend almost over two-thirds of her territory. There are hills in the south of the

province of Buenos Aires, and in Córdoba; but the chief mountain districts consist of the eastern slope of the Andes and its branches, these latter making a mountainous region of the northwestern part of the country.

There are no active volcanoes, but signs exist of some extinct ones. Peaks of the Despoblado chain, in Salta, reach an elevation of 17,000 feet; the culminating point of the Aconquija is 17,000 feet at the highest summit. The Córdoba chain, divided in two, presents no lofty peaks. The Yerbales in the NE. of Corrientes are worth mentioning. The southern portion of Entre Rios is bisected by high hills. Excepting the above, and the Volcan, Ventana, and Guamini ranges, SE. of Buenos Aires, the country is one unbroken plain from the foot of the Andes to the Atlantic, and to the Uruguay river, and from the Bolivian boundary to Patagonia. This great plain forms two regions, one from Rio Negro to Rio Salado, comprising the pampas; the other, north of the Salado and west of the Paraguay, embracing the desert of the Gran Chaco, and extending uninterrupted far north of the Bolivian boundary.

The interior of the republic of Uruguay is traversed by wooded hills. The chief features of the country are the extensive undulating, grassy plains. The principal mountain range is the Cuchilla Grande; others are the Carapy, Castillos, and Yerbal, and the Cerro Pelado, which nowhere exceeds 2,500 feet in height.

The seaboard is low and sandy; the coast in the Plata never is high and rocky; the banks of the Uruguay river are commonly low, with here and there moderately high plateaus.

The country lying between the rivers Paraguay and Paraná is the republic of Paraguay, which is traversed from north to south by highlands known as cordilleras, the Amambaya, Urucury, etc., but which in reality are table-lands, and a continuation of the Brazilian interior plateau; the elevation is not anywhere more than 2,200 feet. There are several plateaus, besides the central ones, such as those in the west. The plateau on the edge of which stands Asuncion, has a relative height of 200 feet, and skirts the Paraguay for about 25 miles; to the north of this is the Altos with a relative altitude of 600 feet. From the Asuncion plateau southward, near the confluence of the Paraguay and Paraná, is a vast stretch of marshy country, draining partly into the Ipoa lagoon; marshy tracts exist in other parts of the lowlands, especially in the Paraguay valley.

The western portion of Bolivia has the highest mountains of the American continent, together with a great number of volcanoes. The cordillera, which reaches up into the region of eternal ice and snow, culminates in the Sorata, a peak 24,800 feet high.

The departments of La Paz, Cruro and Potosí, in that section of country, are situated in the highest part of the plateau of Bolivia. The central departments, Cochabamba Chuquisaca, and Tarija lie partly on the high plateau, partly on the lower slopes and plains eastward, and thus pass through all the changing climates and zones, from the bare high land to the tropical regions of the low lands. Beni and Santa Cruz de la Sierra are in the low lands of the east, stretching to the Rio Madeiro and the Paraguay. The Ata-

cama department is the only portion of Bolivia which comes in contact with the sea, being situated between the Andes and the Pacific ocean. It has many volcanoes.

Western Bolivia has five separate systems of mountains which curve from Peru in the northwest, and passing south into Chili.

Nearest the Pacific is the range of the coast mountains, not exceeding 5,000 feet in altitude. The range of the true Andes, farther inland, attains an average altitude in Bolivia of 15,000 feet, a width of 20 miles, and has the highest point known here, the volcano of Sahama with an elevation of 23,000 feet. The central system is the Cordillera Real, whose culminating peaks are the Illimani (21,300 ft.), and the Sorata (24,800 ft.). Between the Andes and Cordillera Real are serranías, or isolated groups of mountains, and single lesser heights, some 17,000 feet. The last system is that of numerous minor cordilleras, running southeastward from the Cordillera Real into the low lands of eastern Bolivia. The height of the snow line in the high land of Bolivia varies between 16,000 and 18,000 feet. Volcanoes are frequent in the Andes and coast ranges; the Sahama and Isluga, with the Tua, Olca, and Cllagua farther south, are constantly smoking.

The high plains or basins of the plateau enclose a continental water system, from which there is no outlet to the ocean, the rivers emptying into lakes, of which the lake Titicaca is the principal, or in vast dried up salt fields. The valley or plateau occupied by the lake Titicaca, and the Rio Desaguadero forms the most elevated table-land on the globe, excepting that of Thibet; the latter, however, presents only mountain pastures covered with sheep; but the table-land of the New World supports towns and populous cities, and affords food for numerous herds of cattle, llamas, guanacos, and sheep, and is covered with harvests of cereals at an elevation which has nothing to equal it in any part of the world.

Peru possesses three distinct regions, namely, the Coast, the Sierra and the Montaña. The coast region, extending from the base of the maritime cordillera to the Pacific ocean, is a vast, sandy desert, though not without some good valleys here and there along the banks of the rivers which traverse it at intervals. It consists of six sections, beginning at the north, namely, the Piura, Lambayeque and Trujillo, Santa valley, country from Lima to Nasca, Arequipa and Tacna section, and Tarapacá. The great desert of Piura extends for about 200 miles from the gulf of Guayaquil to the borders of the Morrope valley.

The maritime cordillera, overhanging the Peruvian coast, has a long line of volcanic mountains, most of which are inactive; but to them may be attributed the terrific earthquakes which have caused such havoc on the west coast of South America from 1570 to 1877; the convulsion of May 9, 1877, overwhelmed nearly all the southern ports.

The sierra, or region of the cordilleras of the Andes, is the most important portion of Peru. It is divided into two sections, the Puna, which is the high, uninhabited wilderness, and the Sierra proper, or inhabitable mountain slopes and valleys. This great mountain system runs southeast to northwest with the line

of the coast, and consists of three chains or cordilleras which are known as the maritime cordillera, the central cordillera, and the Andes. This last name is given by Peruvian geographers, par excellence, to the eastern cordillera.

The Peruvian maritime cordillera has a chain of volcanic peaks, which overlook the coast region of Tarapacá, attaining a height of 16,000 to 18,000 feet. Chief among them are the snowy peak of Lirima, the volcano of Isluga, the peak of Sehama, and Tacora near the Bolivian frontier. Back of Moquegua is a group of volcanic peaks around those of Ubinas and Huaynaputina. The region contains several other summits, namely, Misti volcano, rising to 18,000 feet over the city of Arequipa, peak of Sarasara in Ayacucho (15,000 feet). In lat. 10° s. the maritime chain separates in two branches running parallel to each other for 100 miles, inclosing the famous Callejon de Huaylas, a ravine whose eastern or main branch is the Cordillera Nevada, and the western Cordillera Negra. On the Nevada the Huascan peak rises to the height of 22,000 feet. The Huandoy peak, above Carhuaz, is 21,038 feet high, the Hualcan 19,945, and most of the peaks in this part attain an altitude of 19,000 feet.

This sierra region comprises four sections, each embracing portions of all three ranges. The first is 350 miles long by 100 broad, and comprises the upper basins of the rivers Marañon and Huallaga; the second is 200 miles long from the Knot of Cerro Pasco to Ayacucho; the third, or Cuzco section, extends 250 miles to the Knot of Vilcañota, with the basins of the Pampas, Apurimac, Vilcamayu, and Pancartambo.

The third division of Peru, that of the Montaña, is the region of tropical forests within the valley of the Amazon, skirting the eastern slopes of the Andes. It is 800 miles long from the Marañon to the Bolivian frontier, and subdivided naturally into two sections, the sub-tropical in the ravines and on the eastern slopes of the Andes, and the dense tropical forests in the Amazonian plain.

Chili is mountainous and subject to frequent earthquakes. About one fourth of the territory, however, is but little higher than the sea level; while the Andes rises much above the line of eternal snow, having a mean elevation of 11,830 feet, and others, Aconcagua, its highest peak is 22,427 feet high. The Andes extend in two parallels nearly throughout the length of Chili. Between these two cordilleras is a table-land, whose greatest breadth is betwen 33° and 40°, narrowing both towards the northern and the southern extremity, where a continuous undulating plain is formed by the ramifications of both. There are several summits besides the Aconcagua, to wit: Mercedario (22,302), Cobre (18,320), Juncal (19,495), volcanoes of Tupungato (20,269), San José (20,000), and Maipiu (17,664). In Arauco is the Vilarica volcano (15,996); in Talca, the truncated mountain known as the Descabezado (12,757); in Ñuble, the volcano Chilian (9,446); and in Llanquihue, the volcano Osorno (7,336). In the Chillan range there are 23 volcanoes, of which only a few occasionally become active. The highest and most frequented passes over the Andes, from Chili to

the Argentine Republic, are those of Doña Ana (14,770), Colgüen (14,700), Dehesa (14,500), Patos (13,965), Uspallata (13,125), and Planchon (11,455). The part of the Andes bordering Atacama may be crossed at any time of the year, the range there being usually free from snow.

The island of Hayti is about 400 miles long from E. to W., and its greatest width N. and S. is 165 miles. Its form is very irregular, being so deeply indented by bays and inlets that its coast line is of about 1500 miles. The island is cut W. and E. by three chains of mountains which are connected by transverse ridges, and between them are extensive plains and savannas.

The Sierra del Cibao, which is the chief portion of the central chain, extends E. S. E. from Cape San Nicolás to Cape Engaño, and the height of its culminating point, about the centre of the island, is variously estimated from 7,000 to 9,000 feet. The Sierra de Monte Cristo, nearly parallel to the Cibao, runs from Monte Cristo to Escocesa bay, where it ends abruptly. The island has been frequently visited by disastrous earthquakes. During that of 1751 Port-au-Prince was destroyed and the coast for sixty miles was submerged. Between the two ranges lies the Vega Real, 130 miles long, well watered, and covered with pasture. The southern range extends from Cape Tiburon to the Neiva river, which is about midway between Port-au-Prince and Santo Domingo city. The secondary ranges running from the main one to the sea divide the country into plains, which are also intersected by other ridges, some of which go to the very beach. Besides the Vega Real, there are llanos, or flats, in the southeast; also a rich pasture district about 80 miles long, and the plains of Les Cayes at the west end.

The coast of Cuba is mostly low and flat, and for this reason is subject to frequent floods. The highest portion of the island is in the range which extends in the S. E. from Punta de Maysí to Cabo Cruz, known as the Sierra Maestra, or Cerro del Cobre, the summits of which are Pico de Tarquino (7,670 ft.), Gran Piedra (5,200 ft.), Yunque and Ojo del Toro (3,500 ft.). From this sierra a ridge of much less elevation follows approximately the central line of the island westward throughout its extent, and rises to form a more marked range in the extreme west of Cuba, on which the Pan of Guajaibon reaches an altitude of 2,530 feet. There is an almost isolated mass of which Potrerillo is the summit. It rises to about 3,000 feet behind Casilda, close to the centre of the southern coast land.

The island of Porto Rico is almost a rectangle, with a length E. and W. of about 100 miles, and a breadth N. and S. of about 40 miles. The coasts are quite regular, generally speaking, but there are many bays and inlets.

The island is intersected by ranges of mountains from E. to W., with an average height of 1500 feet above the sea level, the Luquillo peak in the NE. having a summit known as Yunque, with an altitude of 3,678 feet. In the interior are extensive plains, and level tracts of five to ten miles in width on the coast.

The United States are traversed north and south by two great

systems of mountains, the Rocky mountains in the west, and the Appalachian, or Alleghany chain in the east, between which lies the extensive and fertile Mississippi valley. The two main chains of the Rocky mountains are the Rocky mountains proper, which extend through New Mexico, Colorado, Wyoming, and Montana; and the Sierra Nevada in California, with its extension, the Cascade range in Oregon and Washington territory. Between these two chains is a plateau. The loftiest part of the Rocky mountains is in Colorado, many of its peaks there being upward of 14,000 feet high. The Sierra Nevada and Cascade mountains run nearly parallel to and from 100 to 150 miles from the coast. In the Sierra Nevada are several peaks with an altitude exceeding 14,000 feet, Mount Whitney being 14,887 feet high. The Rocky mountain system embraces an area of nearly 1,000,000 square miles.

The Appalachian chain extends southwest from Canada to Alabama, including among other ranges the Green mountains in Vermont, the Catskills in New York, the Blue ridge in Virginia, the Black mountains in North Carolina, the White mountains in New Hampshire, and the Adirondacks in New York. The Appalachians make their nearest approach to the sea in the highlands on the Hudson, about thirty miles from Long Island sound. In the south the distance is 200 miles. The Atlantic slope, between the Appalachians and the ocean is in general hilly, with level tracts near the shore, especially in the south. The great central district between the two great mountain systems is a region of prairies and plains sloping from the east toward the Mississippi river. A portion in the northeast slopes toward the Great Lakes and the basin of the Red river of the North.

In continuation are the chief physical features of the British, French, Danish and Dutch possessions, situated within the territory embraced in this work.

Bermudas. This group of islands is upon a coral reef. The land is low, the greatest elevation, Gibbs hill, being only 180 feet high. Most of the islands are mere rocks. They are enclosed by dangerous coral reefs, mostly under water, on the northwest and south, and the channels of approach are intricate.

The Bahamas form a group of twenty-nine islands, 661 cays, and 2,387 rocks. The formation of all the islands is the same, calcareous rocks of rock and shell; there is no trace of volcanic origin. The shores are generally low; the highest hill in the whole range is only 230 feet high.

The surface of Jamaica is hilly or mountainous. Most of the level land is to the westward, the lowlands being near the sea. The highest elevations are in the east, the inclined slope rising from the west. Vestiges of volcanic action are noticeable. From the sea-level a series of ridges gradually ascend on all sides toward the central range, rising occasionally into peaks of 6,000 feet. The Blue mountains run centrally from east to west, and at some points are 7,000 feet high.

Trinidad island is crossed by three ranges of hills, the northern one attaining 3,000 feet. There are level and undulating tracts in the valleys, but in some parts the surface is broken.

Most of the island seems to have been formed by mud deposited by the Orinoco river.

Tobago is a mass of rocks abruptly rising on the northeast side and ascending toward the southwest; the most elevated point is some 900 feet above the sea-level.

Grenada has ridges of hills, and an irregular though continuous range of mountains, traversing it from north to south, and rising in some parts to 3,000 feet above the sea. Smaller ridges branch off and form fine and picturesque valleys. There are numerous rivers and in the center of the island, 1,740 feet above the sea, is the circular lake, Grand Etang, two miles in circumference and fourteen feet deep. Lake Antoine is also remarkable.

Barbados island is noted for its fine scenery, hill and valley, smooth table-land and rugged rocks. The highest elevation, Hillaby, is 1,104 feet above the sea-level. Numerous gullies and ravines have been formed by volcanic action.

The surface of St. Lucia is mountainous, with a small plain near the south end and marshes on the coast. Two conical mountains rise from the sea on the west side, an extinct volcano, 1,000 feet high. In the northwest of the island there is an inexhaustible supply of sulphur.

Dominica island has a chain of mountains, forming its longer axis, attaining in some parts an altitude of more than 5,000 feet. The surface is therefore exceedingly irregular. The highest summit is 5,300 feet. The results and symptoms of volcanic action are everywhere visible in the form of emission of subterranean vapors and hot-springs. In the southern part is a boiling lake, which at times throws up its water three feet or more above the surface. There are numerous streams of water.

St. Christopher or St. Kitts has mountains which extend across the central part from southeast to northwest, their highest summit, Mount Misery, being 4,100 feet above the sea-level.

Montserrat island has an uneven, rugged surface, indicative of a volcanic origin. St. Vincent island is crossed by volcanic hills from north to south, and intersected by fertile valleys. The volcanic hill Souffriere, 3,000 feet high, is in the northwest, and had a violent eruption in 1812; its crater is three miles in circumference and 500 feet deep.

The French island of Guadeloupe is one of the leeward West Indies. Properly speaking, it consists of two islands separated by a narrow channel not more than from thirty to one hundred yards broad, called Riviére Salée. The western island is Guadeloupe proper, and the eastern Grande-Terre. Guadeloupe proper is of volcanic origin, and is traversed from north to south by a mountain range whose summit is the Souffrière volcano, about 5,000 feet high. Grande-Terre is low, flat and marshy.

Martinique is irregular in form, high, rocky, and volcanic, containing several extinct craters. In the interior are three mountains, of which the highest, Mont Pelée (4,438 feet), after a long, inactive period had a violent eruption in 1851. From these mountains several low, volcanic hills extend to the sea.

The Danish island of St. Thomas is formed by a mountain ridge,

which extends the entire length, and attains an elevation of 1,480 feet. The shores are deeply indented, and the adjacent waters are studded with islets and rocks.

In the western part of St. Croix, or Santa Cruz, island is a range of hills parallel with the coast, whose highest peak is of 11,000 feet. The narrower eastern end is also narrower in the center of the island; toward the west the surface is undulating; toward the south it is flat, with brackish lagoons.

St. Eustache island consists of a small valley between volcanic cones. Curaçoa is a hilly island, with bold shores, and in some places deeply indented.

The eastern portion of British Guiana is a rough inclined plane, sloping to the sea-level from an elevation of about 80 feet, the highest part being mountainous, and going up to about 2,000 feet. The plain, extending westward and northward, is broken by mountain ranges, the western portion of which forms a part of the great savannah, which stretches eastward from Brazil. There are two parallel mountain systems crossing the country from west to east; the greater is that of the Pacaraima and Merumé mountains; and the lesser includes the Canucu, Cumucumu, and Coratamung mountains: the Sierra Acarai, a densely wooded chain, rises to 2,500 feet, forming the southern boundary of Guiana, and the watershed between the Essequibo and the tributaries of the Amazon. The Pacaraima mountains, a wide, rough country, traversed by broad valleys, extend about 4° to 5.30°, north latitude, rising to 3,000 feet between the Potaro and Liparuni rivers, and to 7,500 feet at Roraima mountain, which rises a perpendicular, inaccessible wall at the extreme western limits of the country. The Roraima is a flat-topped, solid mass, the upper portion of which shows a precipice 1,500 feet high, glistening with the spray of innumerable cascades plunging down its sides. No other of the mountains is more than 4,000 ft. high. The southern portion of Pacaraima presents rugged hills and valleys strewn with rocks; but to the north there are dense forests and magnificent scenery. The Inataca range is situated between the Cuyuni and Barima rivers in 7° to 8° north latitude.

CLIMATES.

Within the torrid zone, or *tierras calientes* of Mexico, the temperature averages from 77° to 82°, seldom falling below 60°, and often rising to 105°, or in the sultry districts of Vera Cruz and Acapulco to 110°. Toward the south the climate on both seaboards is moist, hot, and extremely insalubrious, especially for Europeans. Yellow fever and black vomit are here endemic. In the *tierras templadas*, the mean temperature is from 92° to 72°, oscillating between 50° and 86°; the climate is therefore one of the finest on the globe. The table-lands of Puebla and Anáhuac have often been called terrestrial Edens with an eternal spring. Endemic fevers cease entirely at altitudes of 2,700 and 2,800 feet. This zone is on the whole drier than in the lowlands. The heaviest recorded rainfall (90 to 100 inches) is in healthy Huatusco (Vera Cruz) at

an altitude of 4,380 feet. To the zone of the *tierras frias*, the rainfall is five times less than in the temperate region. Snow rests the whole year only on the four most elevated peaks of Popocatepetl, Orizaba, Nevado de Toluca (15,000 feet), and Ixtaccihuatl. The four seasons are marked clearly only north of latitude 28°. South of that parallel there are but two divisions to the year, the rainy and dry seasons, the former being from May to October.

The climate of Central America on the Atlantic coast, is similar to that of the West Indies, somewhat modified. The Atlantic coast from Trujillo downward, the Mosquito region inclusive, is insalubrious; the climate of the Pacific coast is much healthier; the heat is not so oppressive.

In Los Altos, or the highlands of Guatemala, the temperature is lower than elsewhere. Light falls of snow take place occasionally near Quezaltenango. There is never too much heat. In Guatemala city and its vicinity the thermometer marks from 55° to 80°; the average being 72°. In Vera Paz it is about 10° warmer. The whole coast from Belize down to Izabal and Santo Tomás is hot and far from healthy.

Salvador, which is wholly on the Pacific slope, has probably a higher temperature than Honduras and Guatemala, but the heat is oppressive only in a few localities on the coast. Honduras has a fine climate, except in the portion spoken of on the Atlantic coast. In British Honduras the temperature ranges from 56° to 96°; averaging between 75° and 85°, considerably tempered by sea breezes. Nicaragua, leaving out the region of Segovia, bordering on Honduras and having the same surface and temperature, has a climate of her own, the temperature averaging in the lake region about 79° to 80°, due more to favorable causes than to elevation. In Costa Rica there is almost every degree of temperature, from the intense heat of Puntarenas to the constant spring of San José, or the autumnal temperature of the belt above Cartago. The coast from Chiriquí lagoon to the north is hot, wet, and unhealthy. It may at once be said that there is no dry season on the coast of Central America. However, the rainfall is less from June to September, while during these months the Pacific slope has its rainy season, the rain being brief, and occurring in the afternoon and night. In fact, no other portion of the earth of an equal extent presents a greater variety of climates.

The coasts of Colombia are hot and unhealthy. In the interior of the isthmus of Panamá, on the flanks of the mountains, the temperature is relatively cool, but miasmatic fevers prevail everywhere. The seasons are the wet and the dry; the former lasts from May to December inclusive. July, August, and September are the hottest months. In most parts of the republic elephantiasis, and goitre are quite common among the lower classes.

Like other mountainous countries in Spanish America, Venezuela has the three divisions of *tierras calientes* or *cálidas*, *tierras templadas*, and *tierras frias*. In the first or hot region, the mean annual temperature, taking in that of the whole republic, is 80°; in many parts, however, the temperature rises from 100° to 110°, as in La Guaira, Barcelona, and Maracaibo, the last being by far the hottest

locality in the country. The temperate region is mostly made up of plateaus, situated from 2,000 to 7,000 feet above the sea; its temperature is from 65° to 75°. It is a region of perpetual spring, and extremely healthy. All the country higher than 7,000 feet, including the *páramos*, or highest table-lands, belongs to the third division. It is a remarkable fact that in Venezuela the mesas situated above 8,000 feet, notwithstanding they are so near the equator, are uninhabitable: while those of Mexico, some of which are over 8,000 feet, and those of Quito, Bogotá, Cuzco, and Oruro (this last over 13,000 feet) possess most delightful climates.

In Venezuela, like other tropical countries, there are only two seasons. The dry or summer season usually extends from November to April; the rainy, or winter season, comprises the other months, except in Guayana, where the rains are more persistent, because of dense forests. The average annual rainfall at Caracas is about 330 inches. Fevers, both yellow and intermittent, prevail all along the coast during the rainy season; elephantiasis and goitre are common in the plateaus.

A country with such a varied face as Ecuador, naturally presents a variety of climates. East of the cordilleras, in the wooded and marshy regions, and in the west in the lowlands, it is humid and hot; in the valley between the eastern and western chains the climate and temperature vary with the elevation of the plains or their proximity to the mountains.

There are only two seasons, summer and winter; summer lasting from June to November; the winter or rainy season follows. But this regularity of seasons is seen only on the mesas situated between the mountains and along the slopes of the western cordillera. Hail and snow-storms are frequent in the elevated plains of the cordillera, and frosts destroy the unripe grains. In the coast regions the north wind prevails during the winter, and the copious rains cause the rivers to inundate the surrounding country. After the floods subside, a pestilential marsh remains, sending forth noxious insects in swarms. Fevers are prevalent during the rainy season in the lowlands. The country, taken as a whole, is healthy, especially in the valley between the cordilleras. Intermittent and other fevers are common in the coast region; they are unknown in the mountains, and cases of pulmonary consumption are seldom seen. Elephantiasis is a scourge in Quito.

Brazil, with her immense extent of territory and diversified surface, must have a considerable variety of climate. The great northern lowland is very hot; the year is divided there into two seasons, the wet and the dry. The central and southern highland presents a great variety in the seasons and climates of the intertropical portion of that region; and towards the south beyond the tropics a temperate zone is reached, where four seasons are marked, though not so plainly as in central Europe. To attempt giving more detailed information on this subject would occupy more space than I can afford here.

With the exception of the marshy banks of some of the rivers, where intermittent fevers prevail, the country is generally healthy. On the sea-coast and inland, in some of the maritime provinces,

epidemics of yellow fever and cholera morbus have occurred since 1850. The mortality in the most populous towns of Brazil is said to be rather below that of the large cities of Europe.

The climate along the coast from about latitude 24° south to the north limit and in the Amazon valley is generally hot, though in some parts sudden changes often occur. In the valleys of the Paraná and the Uruguay, as also in the highlands, a cool, or even cold atmosphere reigns. The climate of the whole empire, though mostly humid, is as a rule salubrious. In the north the winter or wet season begins about the end of November and lasts till about the middle of May, during which season rains are abundant, usually accompanied with thunder and lightning; as the end of the season approaches they are heavier and more frequent. At Belem they have only sixty days of the year without rain, the thermometer ranging from 98° to 68°, while at Rio de Janeiro it is 75°, and still lower toward the south. In the north, from June to December, the general winds are steady during the day from the northeast, and during the night from the east. The common diseases are pulmonary consumption, intermittent fevers and rheumatism. Goitre is prevalent in Minas, Bahía, etc.; leprosy is common along the banks of the Amazon, at Rio de Janeiro, and other places. It rarely attacks foreigners, and though reported to be incurable, cases taken before the disease has become thoroughly rooted have been permanently cured.

The climate of the Argentine Republic, taken as a whole, is very good; in fact one of the best in the world, yet presenting great variety. In the north it is hot, and in some places the heat is oppressive, except where fresh breezes come from the Andes to cool the atmosphere. Going south the temperature becomes milder; in Buenos Aires the climate bears a strong resemblance to some portions of southern Europe. In the plains from the Andes to the Paraná moisture is scanty, and the wind often causes changes of 10° to 30° in the thermometer, which rarely marks more than 90°. The prevailing winds being northerly and passing over the marshy and saline districts bring to Buenos Aires much dampness, and upon humanity a lassitude productive of all the maladies resulting from a suddenly checked perspiration. The pampero, or south wind, generally follows the norther, and blowing with great violence drives back the waters of the river Plata miles from the shore and bear clouds of dust that utterly darken the atmosphere. They frequently end with rain, or rather with a fall of a muddy substance composed of water and dust. These storms are usually accompanied with terrific thunder and lightning. The mortality of children within the first week of their birth is very great.

In southern Patagonia the climate is less intemperate than in Labrador, which is at the same distance from the equator in the northern hemisphere. It is also remarkable that while Chilian Patagonia is deluged, Argentine Patagonia is arid and dry.

The climate of Uruguay on the whole is mild and salubrious, the thermometer ranging from 32° to 88°; but table-lands frosts occur in July and August. On the lowlands the temperature is at times 100°. Heavy rains fall in all seasons, more specially in May

and October. There are occasional falls of snow which rapidly disappear. The changes of temperature are sometimes very marked and sudden, frequently falling 40° in four hours, or rising 25° in two or three hours.

In Paraguay the year is divided into two seasons; summer, lasting from October to March, and winter, running from April to September. December, January, and February are usually the hottest months, and May, June, July, and August the coldest. April is mild. The mean temperature for the year is about 75° or 76°; during the summer 81° and during the winter 71°. The endemic diseases of the country are goitre and leprosy; but the natives, being underfed, are prone to diarrhœa and dyspepsia.

Bolivia lies northerly within the tropical zone. In descending from the highest region of snow and ice to the low plains, several stages are distinguished. Puna Brava is the name given to the uppermost mountain regions, rising above 12,500 feet to the snow limit; they are scarcely inhabited by man; the animal kingdom being represented there by the vicuña, guanaco, llama, alpaca, and chinchilla, besides the condor and other birds of prey. The region between a height of 11,000 and the lower Puna Brava is called Puna, and is less cold than the former; it is not well peopled or cultivated. Under the general name of Cabecera de Valle are grouped the heads of the valleys, descending to the lower lands between 9,500 and 11,000 feet of altitude, where the climate is temperate. The Valle or Medio Yunga is the name given to the deeper valleys between 9,500 and 5,000 feet, having warm climate. The Yunga, lastly, is the low tropical region, comprising all beneath 5,000 feet. In the Valle and Upper Yunga a perpetual spring reigns; night frosts are rare. A stranger on first reaching these high plains finds difficulty in breathing, and suffers from dysentery; but these troubles for the most part soon disappear; the highlands are not by any means unhealthy. An infectious fever known there as fiebre amarilla sometimes breaks out in the Indian villages of the Puna, and causes great loss of life. Coughs and lung diseases prevail among the children in the punas, and do most harm among the grown people in the valle and yungas. Down in the equinoctial region of the eastern provinces, intermittent fevers, dysenteries, and other diseases, peculiar to warm climates, are prevalent.

On the Peruvian coast, from November to April, there are usually a constant dryness, a clear sky, and a considerable, though not oppressive, heat. From June to September the sky is obscured for several weeks at a time by fog, often accompanied by a drizzling rain known as garúa. The temperature ranges in Lima from about 80° to 60°. When it is hottest and dryest on the coast, it is raining copiously in the Andes, and the rivers are full; when the rivers are very low the garúa prevails on the coast. The climate of various parts of the coast, however, is modified by local circumstances. The region of Chili lying between the 33rd and 42nd parallels has a salubrious climate. That situated between latitude 42° and 56° has a remarkably healthy climate, there being no great extremes of heat or cold. Malignant endemic diseases are unknown there. Most of the mortality is caused by phthisis,

dysentery, fevers, pneumonia, heart disease, syphilis, and rheumatism.

The climate of the island of Hayti is hot and moist, but usually healthy. In the north, especially in the elevated portions, there is perpetual spring. The seasons are divided into wet and dry. There are localities where it never rains for years. The rainy season runs from April to November in the west, south and centre; and during the other months in the north. Hurricanes are frequent in the south. At Santo Domingo the minimum temperature is 60° and the maximum 95°; the latter occurs in August and September, but the heat is tempered by the terral, or land breeze, in the night.

The climate in the lowland of Cuba is that of the torrid zone; but that of the higher interior is more temperate. We have here in regard to climate the rule governing other countries bordering the tropics, the year being divided between a hotter and wetter season, and a cooler and drier one. There is rain almost every month, but from early May to October is called the wet season. The period from November to April is called by contrast the dry season. The rainfall at Habana in the wet season during seven years has been 27.8 inches. The climate of Habana is tropical, but the excess in heat is tempered by the sea-breeze in the day time, and by the terral, or land breeze, every evening. There are but two seasons; the dry, from November to May, when only occasional rains occur accompanying heavy northers; and the wet season, which usually begins in June and lasts till about the middle of October; during this season the rain pours almost daily in torrents for a number of hours, accompanied with thunder and lightning. Habana has been visited at times by hurricanes, those of 1768, 1844, and 1846 causing immense damage to shipping in the harbor, and to buildings, happily without serious loss of life, their greatest force having been during the hours of daylight. Yellow fever prevails usually from June till September or October, but never affects a native of the city; nor does it attack even the unacclimated foreigner, who resides at even three or four miles from the city. The filthy condition of the harbor contributes to render the city unhealthy.

The climate of Porto Rico though very warm, is quite healthy. North winds are quite common from November to April. The terral, or land wind, so constant in the other Antilles is rarely felt in Porto Rico. The island has frequently suffered from hurricanes.

In a country like the United States, stretching through twenty-five degrees of latitude, and rising from low, swampy shores to vast elevated and arid table-lands and immense mountain ranges, there must be a great variety of climates. With the exception of the extreme south and the Pacific slope the weather is notoriously fickle, and presents great differences of temperature between summer and winter. Changes of thirty degrees within a few hours are common at all seasons, and the alternations from drought to rain are almost as remarkable. The summer is extremely hot, the temperature often rising several degeees above 100°. In the north this extreme heat continues only a few days at a time; in the

south, though the heat is continued, it is seldom so intense. In the winter the thermometer often falls below zero, and it has been known in some parts, particularly Minnesota and Dakota, to reach the freezing point of mercury (—40°). The Atlantic states have generally a temperature ten degrees more severe than countries of the same altitude in Europe, while California's climate is as mild as that of Italy. The average annual temperature varies from 76° in south Florida to 36° in northeast Minnesota. Rain is abundant over the greater part of the republic.

The most fatal diseases in New England and middle states are affections of the lungs; in the southern states bilious fevers, with occasional severe visitations of yellow fever along the coast; and in the western states, intermittent and bilious fevers and dysentery. Cholera, when it has visited the United States, has done more harm in the valley of the Mississippi than anywhere else.

The climate of the Bermudas has been reputed unhealthy in the summer, but statistics show the ordinary mortality to be 22 per thousand. The maximum heat is 85.8°, usually tempered by sea breezes; and the minimum 49°; the average annual temperature being 70°, and that of March 65°. Yellow fever and typhus have made occasional visits with much virulence. In the winter the climate is exceedingly mild, for which reason many invalids resort to these islands at that season.

The temperature in the Bahamas is warm in the summer time, but quite pleasant and healthy in the winter, at which season the colony is frequented by visitors from the United States and Canada. The temperature ranges in Trinidad between 74° and 86° in summer and 70° and 81° in winter. The annual rainfall is sixty-five inches. The island is out of the range of hurricanes.

There is a great variety of climate in Jamaica. In the low lands the temperature is 75° at night, 85° in the day time, tempered by sea and land breezes. It may be said, on the whole, that the temperature is very equable. In the higher levels the temperature is probably 40° to 50°. At Kingston, the capital, it ranges from 70° to 80° throughout the year. The island is unusually healthy, though occasionally subject to yellow fever. Hurricanes occur, when they come, between July and October. The periodical rains, usually lasting six weeks, form the May and October seasons.

In Grenada hurricanes are not very frequent. Earthquakes are felt sometimes. The average temperature is 82°: in the higher parts it is cooler. The rainfall is considerable.

In Barbados the climate is equable and healthy. During eight months of the year the sea breezes keep the temperature delightfully cool. The average rainfall is from 51 to 55 inches. March is the driest month, and October the wettest. Leprosy is not uncommon among the negroes, and elephantiasis is so prevalent that it has been nicknamed Barbados leg. The average rainfall in St. Vincent is about eighty inches annually. The climate is humid and not unhealthy. The temperature of Dominica varies from 69° to 88°. The wet season continues from September to January, though rains frequently fall in other months of the year. St. Kitts is not unhealthy, the temperature ranges from 78° to 84°.

The climate of Montserrat is said to be the most healthy in the West Indies. The climate of the Virgin islands is variable, and there are occasional earthquakes. British Guiana, particularly in the interior, is healthy; its temperature throughout the year 82°; the heat being tempered by sea-breezes is even, and is recommended for persons suffering from diseased lungs.

The climate of Guadeloupe is hot, damp and unhealthy. Destructive hurricanes often cause havoc in the island. Its dependencies have a similar climate. The mean annual temperature of Martinique is 81° in the coast regions. The monthly average in January is 77° and in June 83° The annual rainfall is 87 inches. Hurricanes are of frequent occurrence. The year is divided into two seasons, one lasting nine months from the middle of October, and the other comprising the rest of the year. In this latter part rains are abundant, and yellow fever and similar diseases prevail.

The climate of Cayenne or French Guiana is hotter and more unhealthy than the other two portions of Guiana. During the hotter months—August, September, and October—the temperature usually rises to 86°; in the colder season the mean temperature is 79°; rarely as low as 70°. There is not much thermometrical difference between day and night. The rainy season is between November or December and June, less three or four weeks of good weather in March. The average rainfall annually at Cayenne is from ten to eleven feet, and heavier in the interior.

The climate of Curaçoa is dry and hot, but generally not unhealthy. St. Eustace has a similar climate. Surinam has unjustly had the reputation of being excessively unhealthy. The climate is hot and moist, resembling a Turkish bath, but is not unsuited even to the European constitution. There are no endemic diseases. Cholera, fevers, and small-pox occasionally have appeared, but not more virulently than in more temperate regions. Cases of leprosy and elephantiasis frequently occur among the negro population. These maladies were introduced from Barbados.

The climate of St. Thomas is warm; the thermometer ranges from 70° to 90°. Hurricanes pass over it at long intervals of years, doing immense damage. Earthquakes are frequent, but serious ones rarely occur. A large proportion of the mortality of the island is from pulmonary consumption. Santa Cruz, another Danish island, is said to be also a very healthy country. Consumptives to resort to it in winter.

AGRICULTURAL RESOURCES.

In the *tierras calientes* of Mexico the soil is extremely prolific. In northern Mexico, comprising the states of Sonora, Chihuahua, Coahuila, Nuevo Leon, and most of Tamaulipas, it is valuable only for grazing purposes. There are millions of acres which at present are only fit for cattle, horses, sheep, or goats. The states above named, together with Lower California, have an area of 355,000 square miles, about one-half of the estimated area of the whole nation; one third of that area is mountainous and barren; portions

of the rest would be extremely productive had they an adequate supply of water. There are large tracts where water-holes are so few that in a dry season all grass will disappear, and stock must perish. The portion of land now used for cultivation is small; the largest body being in the valley of the lower Rio Grande from near Camargo to Bagdad, about 1,000 square miles. Properly cultivated and irrigated it would yield abundant crops. Maize, wheat, tobacco, grapes, and coffee, as well as palms, evergreens, mango, olive, orange, lemon, yucca, and an unlimited variety of the cactus family, are found in abundance.

In the highest zone, or *tierras frias*, the maguey, common also to the temperate region, has its home; its fruit is edible, and its fermemted juice supplies the famous pulque and mezcal. The heniquen, an allied species, is likewise produced here. The silk industry in the Mexican republic has been gaining ground. The silk-worm is raised in Oajaca, Puebla, and Hidalgo. The culture has also been introduced in Vera Cruz, Tlaxcala, Michoacan, Querétaro, Jalisco, and Chihuahua.

The value of farms and other agricultural property, including cacao and palm gardens, has been set down for 1887 at $600,000,000. There are probably 54,000 square miles of mountain land, and about 15,000 square miles of uncultivated soil.

Agricultural implements are still exceedingly crude, in many places but little better than the original article: a wooden plough, with the point occasionally armed with iron; a wooden harrow, or large rake, the points of which were sometimes of iron; and a kind of hoe, of various sizes, similar to the rake-harrow, but with a narrow iron knife-edge in lieu of prongs. Reaping is often done with the sickle.

Among the Nahuas and Mayas, from the earliest times of their history, only three farming implements were known—at least the early Spanish records do not mention any more: the coatl, serpent-shaped, a copper implement with a wooden handle, used as a hoe to break the surface of the soil; another copper tool, like a sickle, with a wooden handle, used for pruning fruit-trees. But the instrument in most common use was a sharp stick with the point hardened in the fire, or occasionally tipped with copper. Irrigation and fertilizers were well known and applied.

The ancient Peruvians were tillers of the soil, and had attained an advanced stage. They possessed neither draught animals, nor the ploughshare of the Old World. The implement they used for a plough was a strong, sharp-pointed stake, traversed by a horizontal piece, ten or twelve inches from the point, on which the ploughman might set his foot, and force it into the ground. Several strong men, attached by ropes to the stake, dragged it forcibly along, pulling together. Women followed them to break the sods with their rakes. It was a clumsy contrivance, the only specimen of a plough among American aborigines, and was, perhaps, not much inferior to the wooden instrument introduced by the European, which superseded it. The Peruvians used irrigation and fertilizers, particularly guano.

A few enlightened Mexicans have introduced and employ modern

agricultural implements; thus are American mowing, reaping, and threshing machines, slowly coming into use. American ploughs are common, but only small ones and of unfit patterns are called for. The Mexican farmer believes in the superiority of a wooden plough; and if he buys an American plough, he insists upon having a very small one, hardly more effective than an old-fashioned iron-toothed harrow. Even this innovation is rare. Ninety-nine out of 100 farmers use the plough made from a forked stick, a hoe weighing from 3 to 5 pounds, and the saw-toothed sickle; a bundle of brush answers for a harrow. With these tools Mexican crops are cultivated and harvested.

The value of wheat produced in 1883 was $17,525,890; of maize $114,185,990; of sugar $8,735,000; of pulse $10,000,000; of cotton $6,160,330; to the above must be added the value of hemp, coffee, maguey, barley, tobacco, wood, vanilla, medicines, etc. The value of the products of the five northern states and California was $15,374,000. The total value of agricultural products in that year for the whole republic was set down at $177,451,085. The production has been increasing from year to year. Large quantities of cattle are reared in Mexico. In 1883 northern Mexico alone had on an area of 800,000 square miles 1,500,000 head of neat cattle, 2,500,000 goats, 1,000,000 horses, 500,000 mules and 1,000,000 sheep. Poultry in every variety is also abundant. There were in the whole of Mexico in the same year 20,000 stock ranges, valued at about $600,000,000.

In the centre and southern parts of Tamaulipas there are fertile valleys with rivers to furnish water for irrigation. In the upper country the only agricultural lands are in narrow valleys with springs in small streams.

In the warm zone there are immense virgin forests abounding in timber, dye-woods and medicinal and other useful plants. There are about 114 species of trees and cabinet woods, seventeen of oil-bearing plants, and over sixty of medicinal plants and dye-woods indigenous to Mexico, which frequently differ from kindred varieties existing in other sections of America; most of them are found in the warm region. Among the most important products are mahogany, rosewood, copal, India rubber, jalap, sarsaparilla and vanilla. Maize, or Indian corn, the great food-staple of the people, yields enormously and affords, two, three and even four crops a year Rice, indigo, cotton, tobacco and coffee thrive well; sugar, cacao, bananas and a variety of beans are likewise cultivated. The tobacco of Vera Cruz and Tabasco, the coffee of Colima, and the cacao of Oajaca and Chiapas have no rivals. Near Monterey oranges, sugar-corn, wheat and barley are produced of excellent quality. Parras is noted for fine wines. The grapes, wines and onions of Paso del Norte are famous and for 200 years had a high reputation in Spain.

The chief products of Guatemala are coffee and sugar. Cochineal was at one time the chief staple, but having become in late years unprofitable through the discoveries in Europe of chemical substances to take its place in coloring, the government turned its attention to coffee planting, encouragement being also given to other industries, as the production of sugar, wheat, tobacco, India rubber, cinchona, jiquilite, spices, and grapes, with good results in some instances and good prospects in others.

Of cochineal the product was reduced from 67,709 quintals in 1860-64 to 2,845 in 1879-83. Of coffee not a grain was produced in 1860-64; in the fiscal year 1883-84 the crop was 425,685 quintals; that of 1884-85 was estimated at 520,000 quintals, valued at $5,291,074; the crop of 1886 was worth $6,169,686. Of sugar, panela, muscovado and molasses the product for 1885 was valued at $915,789, against $1,058,551 in 1884, and $976,902 in 1883. The sugar crop of 1886 was valued at $1,160,865. Of India rubber the product for 1879-83 was 9,074 quintals; flour, probable production, 931,144 quintals, sundries, 115,990 quintals; tobacco cultivation progressing. In 1885 Guatemala contained 117,880 horses, 45,500 mules and asses, 494,120 head of cattle, 460,426 sheep, 27,618 goats, 177,118 swine. Total value $18,623,316.

The native population of Salvador being more inclined than that of any neighboring state to civilized pursuits, is largely engaged in agriculture. Soon after the commencement of the second half of the present century they entered upon a career of progress, accomplishing a great deal since, notably in the development of their agricultural resources. Coffee is now the most important production. Indigo was for a long time the only staple of the country for exportation. Maize, rice, and beans are great food-staples of the population. Other productions of less importance are tobacco, sarsaparilla, India rubber, and sugar.

Salvadoran indigo is generally quoted in European markets as Guatemalan. On the other hand a product of Salvador is always designated balsam of Perú, when the tree from which it is obtained is an indigenous product nowhere else than in a limited part of the Salvadoran seaboard known as Costa del Bálsamo. Of this balsam there was exported in 1883 to the value of about $54,000. The product of indigo between 1792 and 1800 was 8,752,562 pounds, which at $2 a pound made $17,5 5,134; the crop of 1864 was worth $1,120,105, and that of 1877 $2,146,423. In 1877 $2,115,669 worth of coffee was raised against $80,000 worth in 1864. Of sugar and muscovado in 1877 $334,351; of rice in that year $154,728. Aggregate value of all agricultural products for 1876-87 were estimated at $15,448,794.

Coffee, indigo, sugar, and tobacco are the leading staples of Honduras, though the soil will yield nearly all the tropical products. The land on both coasts is adapted to cotton. A soft, slender, and juicy sugar-cane is indigenous. Two and even three crops of the cane are produced annually, while the cane needs replanting only once in ten or twelve years. Enough sugar is made for home consumption. Excellent coffee is grown, but coffee estates have proved unprofitable, and the tobacco of the country has a well-deserved reputation. Food staples are varied and abundant, particularly maize, rice and beans, and the country has a large store of precious woods, and many of its fruits are indigenous. Sarsaparilla of excellent quality is found in abundance on the northern and eastern coasts, and vanilla grows in the same regions. Agriculture is sadly neglected in Honduras: a real plough is hardly to be met with in the whole country. The implements in use are of the most primitive kind. The machete is the most employed of any of them. Raising stock is steadily on the increase, and yields sure profit; hence the preference to this branch of industry.

The ruling prices for stock are: cows, $7 to $10; steers average $9; two years old, $3 to $4; three years old, $4 to $6; hogs, $3 to $6; goats, $1 to $2; cargo or pack animals (mules or horses) $35 to $60; saddle mules, $20 to $60; mares, $6 to $10. Mares are used only for breeding purposes. Sheep are rarely seen. Hondurans do not like mutton, and as there is no market for wool, sheep cut no figure in the live-stock industry of the country. The mule, though small, is a tough

animal, with a wonderful endurance, and lives and thrives on a very small allowance of food. In regard to farming produce, maize is the only one worth mentioning. The native, using a sharp stick or his machete, makes holes in the ground at irregular distances, drops in the seed, covers it with his heel, and then lets nature do the rest. Beans are found on every table, and so are the corn tortillas. Tropical fruits are extensively cultivated on the north coast. The price of government lands is from $20 to $100 per caballeria, equivalent to 33⅓ acres.

Nicaragua is a very productive country, its products being all that are found in other tropical countries. The chief staples are India rubber, cacao, sugar-cane, indigo, tobacco, cotton, coffee, fruits, wheat, maize, and other cereals. There are also inexhaustible quantities of medicinal plants, and valuable cabinet and dye-woods. Stock-raising is practised to some extent.

The government has endeavored to promote agriculture. With the view of encouraging it decreed in 1886 a bounty of 80 cents per quintal of 101¼ lbs. avoirdupois to be paid to wheat producers, provided the farmer produced over 25 quintals; to farmers laying out cacao plantations for 10 years, 10 cents yearly for every cacao tree that has reached the age of 5 years, in the departments of Chontales, Matagalpa, Nueva Segorva, Leon, and Chinandega, provided the plantation exceeds in number 3,000 trees. The caoutchouc trees are government property. The cotton is of superior quality; the cacao is second only to that of Soconusco; the sugar-cane is indigenous, and yields an excellent article of sugar; the indigo has a high reputation; the coffee is not inferior to that of Costa Rica; the tobacco is of a superior grade; maize and rice grow to perfection, and in abundance. Coffee and tobacco are exempt from taxation. The climate seems to be unfavorable for cochineal, grape, and stock. It is estimated that the country possesses about 400,000 head of cattle; but this industry has its drawbacks. Nutritious grasses and water are scanty in the summer time; and on the other hand an immense quantity of insects torture the animals; and many of the latter perish from disease.

The soil of Costa Rica is extremely fertile, the climate permitting the successful cultivation of almost all the fruits of the tropical and temperate zones. Upwards of 1,000 square miles are under cultivation, the great staple being coffee; though indigo, sugar, and cacao of excellent quality are raised, the last in the Matina valley, while cotton, tobacco, wheat, maize, rice, potatoes, and other vegetables, roots, legumes, and fruits of the temperate zone are also raised. Cabinet and dye-woods and medicinal plants are among the natural products. There is besides an abundance of horned cattle, horses, and swine.

The first coffee produced in quantity for exportation was in 1835, the industry having been encouraged by a law of 1831. The product in 1845 was 45,000 quintals of 100 lbs. each; in 1848, 90,000; in 1850, 140,000; in 1873, 333,843; in 1874, about 339,000; in 1876, 186,000; in 1877, 180,652; in 1884, about 405,000; in 1885, 125,000 to 130,000 quintals. The crops have usually increased, except when the rains have been either scanty or excessive, or when the country has had a visitation of locusts. The value of the live stock existing in the republic is set down at upwards of six million dollars. The tapir, deer and other animals are hunted for food. The variety of birds of beautiful plumage is large; among them the quetzal (pharomacrus Costaricensis), and the Montezuma (ostirops Montezumæ). J. C. Zeledon's catalogue of birds gives 692 species, some of which are migratory from North and South America.

Colombia has almost unlimited resources, and only needs peace to increase population and develop her natural wealth. Her geographical position, diversity of climate, fine rivers, productive soil, and minerals are unsurpassed by any other country in the world. The chief products are coffee, cacao, sugar, rice, tobacco, cotton, indigo, maize, mandioca. The cereals of European origin

as well as those indigenous to America, and the sugar-cane grow vigorously, in some cases more so than in their native habitat. Ipecacuanha, mahogany, cedar, and other varieties of woods, including dye-woods, divi-divi, vegetable ivory, indigo, and India rubber grow wild. Cattle, horses and other domestic animals also abound. Timber on the isthmus of Panamá is of the best quality and of enormous size.

In Panamá the product of coffee and sugar is not enough even to supply the home demand, though the government has endeavored to encourage the cultivation of coffee, and also of cacao, exempting them from taxation. For 1882 the product of tobacco was 2770 quintals; grain, 197,320 quintals; cacao, 261 quintals; sugar, 155 quintals; panela, 20,455 quintals; molasses, 4,664 jugs; coffee, 2,853 quintals; rubber, 80 quintals; medicinal roots, 8.0 quintals; sundries 354,285 quintals; the total value being estimated at $518,662.

Venezuela possesses one of the richest soils on the face of the earth. With the exception of the elevated *páramos*, and the sandy coast, fertility exists everywhere. The country produces in the greatest perfection the Indian sago, a most valuable palm-tree, the yagua for cordage and a fine oil, and chiquichique for ropes; the chaguarama for thatch and laths; the royal palm, wax-palm, cocoa-palm, etc. The bread-fruit tree and the peach-palm, so much esteemed for their fruits, also abound. In the central valleys and forests of Guayana there is a great variety of timber and cabinet woods. The real cinchona flourishes at elevations ranging from 2,600 to 4,000 feet above the sea-level. The India rubber tree is very abundant, and the same is to be said of Brazil and other dye-woods and plants, including the divi-divi, gums, resins, spices, and medicinal plants and herbs, including sarsaparilla and copaiba. The milk-tree, or cow-tree, known in the country as *palo de vaca*, is an evergreen, indigenous in the cordilleras of Carácas; it yields a sap almost resembling milk, which is commonly used as milk, and is said to be very nutritious.

Among the chief cultivated products are cacao, coffee, tobacco, cotton, indigo, sugar-cane, yucca, maize, bananas, plantains, and a large variety of other fruits. The coffee plant thrives well at elevations from 650 to 5,500 feet. The cacao plantations are along the coast from Guiria, in Cumaná, to the mouth of the Tocuyo. Indigo was formerly grown on a large scale, but for many years past has been gradually giving place to more remunerative staples. Sugar is largely produced, though but little is exported. Tobacco is extensively cultivated. Cattle-rearing is an important branch of the country's wealth.

Nearly 400,000 persons were in 1884 occupied in agricultural pursuits. The annual value of products was estimated at about $56,000,000. Coffee, the most valuable product, was estimated in that year at $11,255,000; and was followed by sugar, $7,686,000: corn, $6,000,000; cacao, $2,998,000. In the same year 852,700 acres of land were under cultivation. In 1883, there were in the country 2,923,733 head of neat-cattle, 3,490,536 goats and sheep, 291,603 horses, 906,467 mules and asses, and 276,500 swine. The total estimate of the produce of stock-breeding in 1884 was $38,522,125. The number of persons engaged in this branch of business was about 200,000.

In Ecuador the mountain surfaces are more or less fertile. From them is abundantly carried the decomposed matter by rivers to the mountain valleys and level lands watered by numerous streams

in the lower sections. The soil is therefore better in the mountain valleys and in the lower sections, and may be utilized for growing crops. Large portions of the mountain sides may be used for grapes and other fruits.

Among the natural products are cinchona and an immense variety of medicinal plants, India rubber, vegetable ivory and orchilla grass, the American aloe, the pajon, from which are made the so-called Panama hats, and inexhaustible quantities of timber suitable for ship and house building and woods for cabinet-work. The cultivated products consist of cereals, coffee, cacao, cotton, fruits, tobacco, nuts, yams. Wheat ripens at any time of the year. It may be said that nearly all of the fruits, grain, and vegetables grown anywhere in the world can be cultivated in Ecuador.

Agriculture is in a low condition; the implements used differ but little from those the Spaniards found in the country when they conquered it. There are a few sugar estates supplied with improved machinery. Cattle and sheep are reared in considerable quantities. Numerous llamas pasture on the páramos.

As a rule estates in Ecuador range from 500 to 10,000 acres. Only a small portion of the arable land is utilized. Ecuador could well support 20,000,000 people. In most of the sugar estates the cane is crushed by ox-power, and the juice boiled in old-fashioned iron kettles. It must be stated, however, that much progress has been made in the introduction of new machinery for sugar plantations. Corn-shellers, stalk-cutters, rice-thrashers, ploughs, harrows, road-scrapers, fire-wood sawing machines, and many other useful things might be introduced by proving their practical advantages.

The soil of Brazil is among the most fertile of the earth, and its capabilities of production are almost unlimited. Among its products are found nearly all that the several zones of America yield. wheat, corn, tapioca, rice, sugar, molasses and rum, cotton, India rubber, copaiba and other gums, sarsaparilla, balsam, resins, drugs, woods of all kinds, haricots, millet, manioc, tobacco, pimento, fruits of every kind, including dates; yerba maté, saffron, etc. But the great staple of the country is coffee. The best of machinery is used on the large coffee estates for cleaning and preparing the berry. But the implements used for cultivating the soil are of the most simple character. Cotton was at one time a staple, but the southern states of the American union, possessing a more suitable soil, proved a rival who became master of the field. Horned cattle and horses abound in the plains of the interior.

The number of cattle in Brazil in 1876 was estimated at 20,000,000, and their value at $113,600,000. When Brazil became free to send her produce to other markets than Portugal, the cultivation of coffee, sugar and cotton grew rapidly. Brazilian sugar competed with that of the West Indies and supplied a portion of Europe, though prohibited in England because it was produced by slave labor. Coffee increased enormously from year to year. Some is grown in the north, but most of it is the production of the central portions of the empire, Rio de Janeiro and Sao Paulo. Most of the cultivation on farms in Brazil is done with the hoe, an implement weighing only two pounds, and others of the weight of five pounds. Some are of steel and some of iron. Probably 600,000 hoes are imported and disposed of annually in Rio de Janeiro; the upper part of the hoe is usually painted green or some other fancy color; some are even gilded. These hoes are mostly supplied from England. Ploughs are as yet of little use in Brazil. Probably not more than 2,000 are annually sold in Rio. A good breaking-plough retails at $20 to $30, and a common one, such as would be worked with one yoke of oxen, at $10 to $12 each; the latter plough has the preference.

The Argentine Republic has a great variety of soil, and it is very productive, except in the southern plains. The pampean plains are well supplied with water from numerous streams, large and small, for irrigation, which renders them very rich in pasturage, specially in the region southwest of the Paraná. In the provinces bordering on the great rivers the earlier and the later rains can always be counted on. But in the interior provinces the rainfall is scanty, except in winter; the fields must therefore depend on irrigation.

Dense forests, where timber is unavailable at present because of their great distance from the sea, cover the east flank of the Andes, and the banks of the western affluents of the Paraguay. The trees are mostly of the mimosa family.

The following are among the natural products: The algarroba, whose fruit the Indians mix with maize and make a kind of bread; by fermentation an intoxicating liquor is produced. In Salta the cinchona, a variety of palms, and yerba maté are indigenous. In Salta and Santiago the *cactus foliosus* grows enormously. Aloes abound; and plenty of coca grows in Salta. Indigo is wild in Corrientes, as well as a shrub which feeds the clavillo insect, famous for the green dye it provides.

The republic possesses great possibilities for fruit-growing. There is no fruit, whether it be tropical, sub-tropical, or of the temperate zone, that it cannot and does not produce.

The wine-making industry has already a firm foothold. Large amounts of capital are invested therein through the provinces of Mendoza, San Juan, Rioja, and Córdoba. The product of Mendoza and San Juan is ordinary red and white table wines, somewhat sweeter than the French, but with much greater body. There is a wine from Córdoba very similar to Spanish sherry.

The valleys of the Andes, where the vine is most carefully cultivated range in altitude from 3,000 to 4,000 feet above the level of the sea. The best vines are probably those of the Famatina valley, and the hill sides of Arauco, at an average altitude of 3,500 feet, and ranging between 28° and 29° latitude south. On the hill sides of Calchaqui a very fair article of strong, red wine is produced at an altitude of about 6,000 feet, but lacks the softness and bouquet of that from La Rioja.

There are several extensive producers in Mendoza, San Juan, Rioja, and Córdoba who have large wine cellars, and thoroughly prepare their wines for market. During recent years the e wines have found their way to Buenos Aires; their quality is so superior to the ordinary wines brought from France and Spain that they find a ready sale at remunerative prices. Owing to the excessive freights the wines of those provinces must pay for overland carriage, the foreign wines can still be sold at lower rates, even after paying a duty of 40 per cent. The same may be said of brandy made in the interior, the quantity of which is growing yearly. The brandy is of good quality, and in the interior provinces is preferred to the foreign importation. With greater improvements in the manufacture and cheap freights the Argentine Republic will take a position among the foremost wine-producing countries.

Catamarca in 1881 yielded 1,200,000 gallons, worth $108,000. In 1882 San Juan produced 5,236,186 gallons valued at $1,107,275. This wine competed favorably with similar growths from Spain and Italy. The importation of wines, notwithstanding the increase of domestic production, rose in 1884 to $8,259,816; of spirits to $2,853,825, and of beer, to $825,717.

The sugar industry was only partially developed toward the latter part of the year 1887. There was no export of the article; indeed, the production was not sufficient to meet the home demand, and much sugar was imported from abroad. The government was fostering the industry, and under this protection it has been assuming the position of one of the permanent and growing industries. The production shows a large increase from year to year.

Sugar-cane is cultivated in the provinces of Tucuman, Santiago del Estero' Corrientes, Jujuy, Catamarca, Salta, and territory of Chaco. Probably 45,000 acres of land are devoted to the cultivation. The sugar produced in 1885 was 47,000 tons, valued at $10,680,000. The entire production in all the republic in 1857 was only 800 tons. The plant is perennial, and therefore, need not be planted annually.

Cotton and red pepper are abundant in Catamarca, the Gran Chaco, and Misiones. The cotton is woven by hand-looms. Corn, potatoes, and the several European cereals are produced in almost all the provinces. The wheat crops are enormous. The rice of Tucuman and Santiago is excellent. The low islands, which for fifty or sixty miles above Buenos Aires form the delta of the Paraná river, are admirably adapted for rice. Tobacco grows everywhere. In Corrientes and Gran Chaco there are fine fields. Competent writers have said that Argentine tobacco will in a few years compete with that of the United States in quantity, and with that of the West Indies in quality. Nearly all the provinces yield maize and potatoes, as well as the different European cereals. But business in agricultural products does not compare with that in animal produce, as will be shown hereafter.

The regions of Patagonia and Tierra del Fuego have been carefully explored, and proved to be very valuable possessions.

An expedition of a few hardy Welshmen under Col. Fontana, governor of southern Patagonia, traversed over 3,000 miles. The governor reported the discovery of a most magnificent country, with great lakes, rich valleys, fine pastures, dense woods, and all the elements necessary for the support of a large population, close upon the cordilleras, with passes quite accessible to the Pacific. He collected eleven kinds of timber, among them red cedar, white and red pine, two varieties of beech, and other woods suitable for cabinet work. He found a profusion of cryptogams, mosses, lichens, and various mushrooms, two kinds of which turned out to be good and savory; and game, large and small, of great variety in immense quantities. South of the river Gallegos excellent pasture was discovered along the northern shores of the straits of Magellan. In Tierra del Fuego several exploring expeditions discovered that not a little of this inhospitable wilderness has good pasturage, and rich valleys, already stocked with cattle by the natives. In 1886, regular lines of steamers were established from Buenos Aires to Cármen de Patagones, and up the winding Rio Negro, as far westward almost as the cordilleras; the valley being already a succession of sheep and cattle estancias.

The administration has lately abandoned the scheme of special government colonies; but its agricultural department uses every effort to improve the varieties of grain grown in the country, to promote viticulture, and to import the best breeds of live-stock.

Exports (kilogrammes)	1883	1884	1885
Wheat	60,754,677	108,499,228	78,493,892
Flour	4,844,585	3,734,389	7,447,077
Indian corn	18,634,351	113,710,088	197,859,612
Barley	177,909	862,558	2,109,668
Baled hay	11,640,500	11,846,071	13,765,011
Linseed	23,161,736	33,991,050	69,423,104
Peanuts	2,617,292	1,092,655	2,429,557
Potatoes	1,382,606	310,339	483,389

Sugar, liquor, and wine are beginning to compete with the foreign articles; but the yield at home is unequalled, as yet, to the demand. The finance minister two years ago expressed the opinion that the country would not only cease to import wine, sugar and rum, but have a surplus to export to other countries.

The modes and methods of cultivation have been, and are still, specially in the interior provinces, exceedingly primitive, as it is in pretty much all Spanish America. Though it must be acknowledged, that in late years, notably in the riverine provinces, agriculture has undergone many changes for the better, which is due in some measure to the large foreign population which has settled in the provinces of Buenos Aires and Santa Fé. This part of the country has been placed in the last 14 or 15 years far ahead of the interior in agricultural developments. Instead of sharpened sticks the very best steel ploughs from the United States, Belgium, and Germany are used, as well as the most approved machines for reaping and thrashing the wheat. This is made evident by the constant increase in the demand for such implements. In due time the interior provinces will follow the example of their riverine sisters.

The total area under cultivation in 1887 was 5¼ million acres, of which two million were under wheat, with a yield valued at $20,000,000. The total value of the agricultural products in 1887 was estimated at $70,000,000. The government owned in 1886, 126,125 square miles of public lands. Its pasture lands were valued at $388,000,000; the forest and mountain lands at $49,000,000; farming lands at $90,000,000; aggregating $527,000,000. Real estate had risen in value throughout the republic in 1884 to $487,000,000, or 385 per cent. over that of 1860; in the province of Buenos Aires to $301,000,000, or 584 per cent. over 1850.

The Argentine Republic possesses another great branch of wealth; that of her immense herds of cattle, sheep, horses, llamas, and alpacas, from the *esquilmos* of which are derived the staples of the national export trade.

The export duty on jerked beef having been removed, the slaughtering industry was greatly developed in 1884 and 1886.

Products	1884	1885
Dry hides	$5,894,806	$7,511,919
Salted hides	2,923,602	4,488,204
Jerked beef	2,456,997	4,204,077
Bone and bone-ash	621,619	782,464
Hide cuttings	84,139	80,485
Horns	118,795	159,896
Tallow	2,150,228	3,489,139
Total	$14,249,686	$20,716,214

In 1886–7 the development was still greater. Frozen mutton carcasses to the value of £75,8_3 were also shipped in 1885 to England and Italy; the business has increased considerably since. At the time that the La Plata region became independent, there were proprietors possessing as many as 20,000 head of cattle. There were few dairy farms. The number of animals at that period exceeded 17,000,000 of horned stock, 72,000,000 sheep, and about 3,500,000 horses and mules. In later years the quality of wool was greatly improved by the introduction of Saxony sheep. Excessive floods in 1883 inundated a large portion of the province of Buenos Aires. This was followed by an enormous mortality in the flocks and herds, from an unknown disease. The total losses from the floods were set down at 5,000,000 mares and horned cattle, and 12,500,000 sheep, valued at $17,900,000; while the losses from the epidemic were computed at 7,000,000 sheep, equal to $8,000,000 more, making a total of nearly $26,000,000. The annual increase of sheep being estimated at 20 per cent., allowing for the animals slaughtered for food, the country at the end of 1886 must have had less sheep than the preceding year. According to the latest official estimate there were in the country 14,171,000 head of neat-cattle, 4,186,000 horses, and 70,910,000 sheep, the total value of which was set down at $331,000,000. These animals feed themselves, and live as best they may, entirely on the natural grasses, which grow spontaneously. There is no difference between the frosts of winter and the droughts of summer. It is a most exceptional year when stock do not manage to "pull through" from one season to another.

The soil of the oriental republic of Uruguay is exceedingly rich. The crops raised are very abundant, and consist of a variety of cereals, fruits and vegetables, sugar-cane, and cotton. The variety of trees for building and fine workmanship, and of medicinal and dye products is also very large. Among the medicinal are the poppy, wormwood, gentian, balsam, coriander, chamomile, liquorice, and sarsaparilla. The greatest wealth of the country, however, is its pasturage, to feed its numerous herds of horses, sheep, and neat-cattle, the rearing of which is the chief industry of the Uruguayans.

It is calculated that 500,000 acres of land were diverted in 1887 to tillage in Uruguay, and 44,500,000 acres are left for flocks and herds. The estimated annual average yield of wheat is 1,500,000 bushels. The farms are usually small, from 20 to 200 acres. Manures are never used, and it would be difficult to procure any. The colonist farmers are from the Canary Islands and their descendants, or Italians and Swiss. The natives nearly always confine themselves to cattle-breeding. The hand tools, such as hoes and grips, are of clumsy Italian pattern and make; harrows and ploughs, reapers and harvesters are from the United States; hay-forks, shovels, threshing-machines, and steam-power of English make. American implements are much preferred, but considered too costly. Indeed, with the masses cheapness is a great desideratum. A large portion of the farmers have to turn over their crops to the storekeepers, who supplied them with cash and effects during the winter. The farmers are, as a rule, frugal and temperate. The storekeepers sell the wheat in the corn-market for cash. They are said to deal fairly with the farmers. The pastoral establishments in 1885 were officially estimated to contain 5,994,057 head of cattle, 634,967 horses, and 17,049,798 sheep. In 1886, 751,067 head of cattle were slaughtered for their hides and tallow, for manufacturing extract of beef and beef preserved in tins.

The soil throughout Paraguay is extremely fertile; every species of vegetation is luxuriant. Much of the country is covered with forests. There are upwards of 50 kinds of excellent building timber, some of which is as hard as iron, such as the lapacho, quiebrahacha, etc., and others so heavy that they sink in water. Many of the woods are specially adapted for cabinet work. There is an abundance of medicinal, tanning, and dyeing plants. Copaiba, rhubarb, sassafras, jalap, sarsaparilla, nux vomica, dragon's blood, and liquorice abound. Of the curuguaty, a parasite, ropes and cables

are made. The güembetaya bears a fruit resembling and tasting like Indian corn, and commonly used by the natives for bread. India rubber, medicinal plants, and dye-stuffs are also among the natural products. The arrow-cane grass, very common along the banks of rivers, is a seed resembling oats, excellent for fattening cattle. The yerbales covering some 3,000,000 acres of land far in the interior, were a great source of income to the Jesuits, who made it known in South America as a substitute for tea and coffee.

The country also produces coffee, sugar, cotton, maize, rice, wheat, mandioca, and excellent tobacco. The tobacco of Paraguay is remarkable for fragrance and appearance as well as suitableness for making into cigars. It is ranked with Manila tobacco, but the growers do not know how to cure and prepare it properly for market; hence its inferior price abroad. Cattle-raising is about the chief industry of the inhabitants.

In 1882, 37,500,000 pounds of sugar were produced. Less than 158,100 acres of land were under cultivation in 1887. The agricultural products hardly suffice for the needs of the people. Nearly three-fourths of the territory was national property, but in recent years most of it has been sold, a great portion in very large estates. The number of horned cattle existing in Paraguay is supposed to be 730,000; of sheep, 32,000; of horses, 62,000; of goats, 11,000; and of swine, 12,000.

Bolivia is well provided with rivers and streams for irrigation. Those which rise on the western slope of the Andes and flow into the Pacific, are inconsiderable as regards size and course, but they are useful for supplying a partial irrigation to the arid plains, which separate the Andes from the Pacific ocean, while those originating in the eastern declivity of the Andes are not only useful as a means of irrigation, but possess great importance because of their connection with the large, navigable rivers, which flow into the Atlantic.

The country has high table-lands, which are perfect granaries of wheat production, and a great deal of valuable timber. The low lands are covered with tropical forests and swamps—every variety of climate and several productive regions. The natural and cultivated products are like those of Perú. Cacao, sarsaparilla, vanilla, copaiba balsam, caoutchouc and a kind of cinnamon grow spontaneously. Cotton, rice, tobacco, indigo and drugs, among them the cinchona, also grow without much labor. Woods of every description abound in the forests. The dried leaf of the coca (erythroxylon coca) is chewed by all classes. Over ten million pounds is said to be prepared annually. To the above mentioned productions must be added coffee, sugar-cane, and garden vegetables and fruits in the greatest luxuriance and plentifulness.

The vast agricultural resources of Bolivia have been till within a few years in a dormant state for want of facilities for communication. More recently an attempt has been made to provide railways and good roads. India-rubber and coca are among her most valuable staples. The former is of the finest quality and inexhaustible. The quantity of coca obtained in the fiscal year 1884–85 was valued at $1,718,330. The number of cinchona trees was officially estimated for that year at about five millions, and the quantity of bark obtained was set down at 200,000 pounds.

Perú has a fertile soil well suited for farming and still more so for rearing cattle and sheep. But the country placed her main re-

liance on the accumulated *excreta* (guano) of myriads of birds for an extensive foreign commerce. Thus it is that while a great portion of Europe has been fertilized with that guano, Perú lies nearly wild and waste. Agricultural implements were disregarded; the tillage was rude and scanty and unaccompanied with the use of manure. However, a small yield of cotton, sugar, and coffee still remained as a relic of the agricultural industry of the eighteenth century. In later years, guano having proved a great source of wealth, the inhabitants became inspired with a wish for improvement. The alpaca was bred for its wool and with the wool of the llama and the sheep formed next to guano valuable staples. The immense forests yielded cinchona, sarsaparilla, copaiba, caoutchouc, resin and gum, cedar, mahogany, several dye-woods; cotton, rice, maize, sugar, tobacco, cochineal, etc., form less important items.

The production of sugar in Perú has has been unfavorably affected by competition in foreign markets of the article made from the beet root. Yet the planters are obliged to keep their establishments in working order. The large amounts expended in the purchase of improved machinery—from three to four million dollars—would be imperilled by the suspension of labor; the plant would soon become unserviceable. Rice and tobacco are grown in considerable quantities in the northern departments, chiefly for home consumption. American rice mills of the most improved patterns are used in Chiclayo and elsewhere. Other cereals grow almost spontaneously, but owing to the difficulties of transportation cannot reach the coast. Hence the supply of wheat and barley comes from Chili. The cultivation of cotton has been almost abandoned. The planters had made much progress in this branch during the sectional war in the United States; but after the war terminated the business was no longer remunerative. The wool business in the south has been on the decrease. The estates in the north depend almost entirely on Chinese workmen for farm hands. The laborers, who were brought under contracts, have worked out their time and are free. Some of them, induced by high wages, continue on the plantations, but the majority have setled in the large towns and become small shop or inn keepers. In late years many Chinamen have gone to Perú as free laborers. The few agricultural implements used are spades, hoes, scythes, sickles, etc., of English make. As a rule the small farmers are too poor to incur the expense of buying costly implements from abroad.

Only about 18 per cent. of Chilian soil is arable. The agricultural zone, comprising the region between the 33d and 42d parallels, contains the central valley, which is well-watered; the rainfalls there are abundant, the soil is arable and very fertile. The regions of Coquimbo and Aconcagua are exceedingly productive. The former yields cereals and fine fruits, specially figs and grapes; and the latter, besides cereals and fruits, marjoram, and its pastures are excellent. Valparaiso is exceedingly rich, yielding barley, beans, clover, fruits, wheat, and hemp; and Santiago supplies hops, lentils, oats, pepper, potatoes and tobacco. Colchagua provides a large number of cattle, horses, and mules, and some grain. Valdivia is famous for its timber, and produces good cheese.

Generally speaking, it can not be said that agriculture in Chili is receiving the attention that such an important industry deserves. It is true that some large estates, belonging to rich owners, would in any country be called "model farms," but they form the exception to the general rule. The Chilian farmer, speaking generally, still uses the old implements and contrivances of the time

the Spaniards first came to the country. There is hardly any improvement.

In the extreme south the wages of an agricultural laborer do not exceed ten cents a day; proceeding northward they rise till they reach thirty cents a day with rations, which consist almost exclusively of beans and coarse bread.

Statistics of 1884 give the annual production of Chili to be about 6,500,000 hectolitres of wheat, 250,000 hectolitres of barley and other cereals, besides all vegetables and fruits of the temperate zone. For the year 1884 itself, they set forth 5,812,219 hectolitres of wheat and 11,437,560 decalitres of wine. Statistics of 1887 give the annual production of wheat at 18,000,000 bushels of wheat and about 24,000,000 gallons of wine. About one million and a half of the population are engaged in agriculture. The cattle increase is calculated at 400,000 head per annum, and of sheep and goats 1,000,000.

The vegetation of the island of Hayti is tropical, except in the most elevated portions. It is surpassed nowhere for luxuriance and beauty. The mountains are covered with forests containing pine, mahogany, ebony, fustic, satin-wood, and lignum vitæ; oak, wax-palm, dividivi, and other woods which are suitable for cabinet work; the queenly palma real grows finely in the lowlands. The tropical esculents, grains, and fruits grow everywhere. Among the fruits are the melon, bread-fruit, mango, caimite, pine-apple, orange, almond, apple, grape, mulberry, fig, etc. A species of agave, which is very plentiful, furnishes the fibres of which all the rope used in the country is made. The western, or French end, has always been the best cultivated. The articles produced, specially for export, are coffee, cotton, cacao, sugar-cane, indigo, pimento, and tobacco. The eastern, or Spanish end, however, enjoying all the advantages of the other, is not very far backward in availing itself of them. Coffee, sugar-cane, tobacco, and cacao of excellent quality are cultivated; large sugar plantations and factories are in full operation in the south and west parts of the republic.

Agriculture in Hayti is in a very rudimentary stage; the natives persist in working on the same system existing in the times of the old French domination; the hoe, the machete, and the indigo knife are the sole agricultural implements in use. The country offers a field for American enterprise to introduce improved agricultural implements, specially those adaptable to mountainous regions.

Aliens are not allowed to own real estate in Hayti. Consequently there is no inducement for foreign capital to engage in agriculture in the country, and large tracts of rich farming land remain untilled. The government introduced a few improved farming implements, and some fine banana plants, but those efforts were unappreciated. The country needs muscle and indefatigable enterprise.

The importance of cultivating several staples for export is seen in the reduced price of the only staple. Coffee was worth $14 to $16 per quintal in the first years of this decade; in the last six months of 1885, and first six months of 1886 the price went down, ranging from $5.80 the lowest to $7.25 the highest; and at the end of September, 1886, it was $5.50 to $6. The country for seven or eight years suffered from severe drought. But since December, 1885, during the so-called dry season, rain fell in abundance. Small crops of coffee resulted from the drought, and afterward the heavy rains beat off the blossoms

and buds, thereby decreasing the quantity of berries. Sugar-cane grows luxuriously in the plains, but very little is manufactured into sugar; the sirup made is used in lieu of sugar, but most of it is turned into taffia, valued at 30 to 40 cents per gallon, and consumed by the natives. Many planters have abandoned coffee cultivation, owing to the prevalent low prices, and turned their attention to sugar-cane, which is more lucrative. Haytien coffee is commonly denominated Santo Domingo; it is of excellent quality and comparatively cheap. There is some prejudice against it, because it is often imperfectly hulled, and even allowed to carry with it sand and gravel to increase the weight. The yield of coffee in the last fifteen years of the 18th century averaged 70,000,000 pounds; from 1850 to 1860 the yearly average was 45,000,000, and from 1860 to 1870, 60,000,000. Cotton, though always extensively cultivated, has been subject to fluctuations. Before the revolution the yield was 7,200,000 pounds, most of which went to France. In 1858, it had dwindled down to about 500,000. During the civil war in the United States the yield reached 5,000,000 pounds; the crop of 1866 was 7,000,000. A civil war reduced it to 2,000,000; but an interval of peace again increased it in 1871-2 to about four and a quarter million pounds.

The country has a large variety of wild animals, descended from those introduced from Europe, such as neat-cattle, swine, and dogs. The cattle of hundreds of owners graze in herds; they are as in other cattle-breeding countries annually rounded up, counted, and the young branded. The country has many other valuable animals, such as the iguana, whose meat is highly appreciated by many as very palatable; manatees or sea-cows are numerous; turtles, very large lobsters, oysters, and crabs abound on the coasts.

Cuba has several rivers, but most usually depends on the rainfall. The forests of the island are extensive and very dense. It is calculated that there are about 20 million acres of land uncultivated, of which 13 millions are uncleared forests. Mahogany and other hard woods, such as ebony, cedar, granadillo, etc., are indigenous. The royal palm is found in all its beauty throughout the island, especially in the western part. The fruits of Cuba are those common to the tropics, including the pine-apple, orange; the varieties of the plantain family being the most esteemed. The sweet potato, yams, and yucca (both sweet and bitter) are common. Indian corn is indigenous. But the chief agricultural products are the sugar-cane, coffee, and tobacco.

The farming interests of Cuba early in 1886 were: 1200 plantations of sugar, whose crops which came to market that year amounted to 750,000 tons; 5,000 tobacco farms; 160 coffee estates; 25 cacao estates; 5,000 stock farms; 17,000 truck and other farms.

The soil of Porto Rico is very rich and productive. In the mountains it is red clay colored with peroxide of iron; in the valleys black and less compact; on the coasts sandy, but which may be cultivated. The pasture lands in the north and east have been considered superior to those of the other Antilles. Many small streams from the mountains contribute to enrich the soil. The natural products are varied and valuable, consisting of woods for building and fine cabinet work; there are also dye-woods, and many plants valuable in the arts and in pharmacy. The tropical fruits, vegetables, and edible roots are found in abundance, and of the finest quality. Sugar-cane, coffee, tobacco, cotton, rice, and maize figure among the cultivated products. It is said that there is more sugar obtained from a given area of cane than in other of the West India islands. Most of the agriculture is in the hands of the natives of the island.

The quantity of sugar produced by Cuba and Porto Rico in the fiscal year 1885–86 was 682,000 metric tons. The yearly product of tobacco in Cuba is about 300,000 bales.

The resources of the United States can best be shown in tables.

Agricultural Property in 1880.

No. of acres of land under cultivation.....539,309,179
Value of farms.....$10,197,096,776

Principal Cereal, Cotton, and Tobacco Productions of the United States of America. 1880.

Indian Corn.....1,754,861,585 Bushels
Wheat.....459,479,505 "
Oats.....407,858,999 "
Barley.....44,113,495 "
Rye.....19,831,595 "
Buckwheat.....11,817,827 "

The production of the same six cereals at the three preceding censuses was as follows:

Census	Indian Corn	Wheat	Oats	Barley	Rye	Buck-wheat
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.
1850.....	592,071,104	100,485,944	146,584,179	5,167,015	14,188,818	8,956,912
1860.....	838,792,742	173,104,924	172,643,185	15,825,898	21,101,380	17,571,816
1870.....	760,944,549	287,745,626	282,107,157	29,761,305	16,918,795	9,821,721

Aggregate of Some Leading Farm Products, 1880.

Hay.....35,205,712 Tons
Hops.....26,546,389 Pounds
Rice.....110,131,378 Pounds
Potatoes.....169,458,589 Bushels
Milk.....590,129,755 Gallons
Butter.....777,250,287 Pounds
Cheese.....27,272,489 Pounds

The following are the returns of the cereal crops of the United States for the years 1882-86:

Years	Acres	Bushels	Value
			Dollars
1882	126,568,585	2,699,894,496	1,468,933,900
1883	130,633,556	2,629,319,089	1,280,765,927
1884	136,292,766	2,992,880,000	1,184,311,520
1885	135,876,080	3,015,439,000	1,143,146,759
1886	141,859,656	2,842,579,600	1,162,161,910

The areas and produce of the various cereal crops for 1885 and 1886 are specified in the subjoined tables:

1885.

	Acres	Bushels	Value
			Dollars
Corn	73,180,150	1,936,176,000	635,674,080
Wheat	34,189,246	357,112,000	275,320,390
Oats	22,788,630	629,409,000	179,631,800
Rye	2,129,301	21,756,000	12,594,820
Barley	2,729,359	58,360,000	32,867,096
Buckwheat	914,394	12,626,000	7,057,373
Total	135,876,080	3,015,439,000	1,143,146,759

1886.

	Acres	Bushels	Value
			Dollars
Corn	75,694,208	1,665,441,000	610,811,000
Wheat	36,806,184	457,218,000	314,226,020
Oats	28,658,474	624,184,000	186,137,080
Rye	2,129,918	24,489,000	13,181,330
Barley	2,652,957	59,428,000	31,840,510
Buckwheat	917,915	11,869,000	6,465,120
Total	141,859,656	2,842,579,000	1,162,161,040

The area under tobacco in 1877 was 745,000 acres, and the crop 580,000,000 pounds, valued at $40,600,000: in 1884 the area was 724,668 acres—crop 541,504,000 pounds, valued at $44,160,151; in 1885 the acreage was 752,720, the crop 562,536,000 pounds, and the value $43,265,598: of this about 45.5 per cent. is exported. The quantity produced in 1886 was 485,000,000 pounds. In 1882 the total area under cotton was 16,276,691 acres, estimated to yield 6,957,000 bales; in 1885 the acreage was 18,300,865, the yield 6,575,300 bales, valued at $269,989,812. The acreage in 1886 was 18,454,603, and the quantity produced was 6,505,080 bales.

The following table exhibits the number of live stock at the two census years 1870 and 1880 and in 1887:

	1870	1880	1887
Horses	8,248,800	11,201,800	12,496,744
Mules	1,179,500	1,729,500	2,117,141
Cattle of all kinds	25,484,100	33,258,000	48,038,833
Sheep	40,858,000	40,766,900	44,759,314
Swine	26,751,400	34,084,100	44,612,386

The total value of farm animals in the United States in 1887 was

$2,400,587,000. The area devoted exclusively to the rearing of cattle measures 1,365,000 square miles. While the production of butter as a farm product increased from 514,092,683 pounds in 1870 to 777,250,287 pounds in 1880, that of cheese decreased from 103,663,927 pounds in 1860 to 53,492,153 pounds in 1870, and 27,272,489 pounds in 1880. There were besides, however, 171,750,495 pounds of cheese produced as a manufacture in 1880, and 16,471,163 pounds of butter.

Production of Corn and Wheat in the United States in 1887.

Corn, 1,456,161,000 bushels; value, $646,106,770
Wheat, 456,329,000 " " 310,912,960

Quantities, Acres, and Value of Leading Crops in the United States in 1884-1887.

PRODUCTS	Quantity Produced	Number of Acres	Value	Average Yield per Acre	Average Price	Average Value Per Acre
			Dollars			
Corn, 1884....bushs.	1,795,528,432	69,683,780	640,735,560	25.08	$0 35.7	$ 9 19
Corn, 1885..... "	1,936,176,000	73,130,150	685,674,630	26.5	32.8	8 69
Corn, 1886..... "	1,665,441,000	75,694,208	610,311,000	22.0	36.6	8 06
Corn, 1887..... "	1,456,161,000	72,392,720	646,106,770	20.1	44.4	8 93
Hay, 1883.....tons	46,864,009	35,515,948	383,834,451	1.32	8 19.	10 81
Hay, 1884..... "	48,470,460	38,571,593	396,139,309	1.26	8 17.	10 27
Hay, 1885..... "	44,736,550	39,849,701	389,752,873	1.12	8 71.	9 78
Hay, 1886..... "	45,000,000	38,000,000	331,200,000	1.18	7 36.	8 68
Wheat, 1884..bushs.	512,765,000	39,475,885	330,862,260	13.0	64.5	8 38
Wheat, 1885.. "	357,112,000	34,189,246	275,320,390	10.4	77.1	8 05
Wheat, 1886.. "	457,218,000	36,806,184	314,226,020	12.4	68.7	8 54
Wheat, 1887.. "	456,329,000	37,641,783	310,612,960	12.1	68.1	8 25
Cotton, 1884...bales	5,646,441	17,439,612	253,993,385	.33	9.2	13 56
Cotton, 1885.. "	6,575,300	18,300,865	269,989,812	35.9	8.5	14 75
Cotton, 1886.. "	6,450,000	18,501,667	237,366,387	36.	8.1	12 83
Cotton, 1887.. "	6,306,150	16,854,184	254,117,350	33.8	8.5	12 64
Oats, 1884.....bushs.	583,628,000	21,800,917	161,528,470	27.4	28.	7 58
Oats, 1885..... "	629,409,000	22,783,630	179,631,860	27.6	28.5	7 88
Oats, 1886..... "	624,134,000	23,658,474	186,137,950	26.4	29.8	7 87
Oats, 1887..... "	659,618,000	25,920,906	200,699,790	25.4	30.4	7 74
Potatoes 1884 bush.	190,642,000	2,220,980	75,524,290	85.8	39.6	34 00
Potatoes 1885 "	175,029,000	2,265,823	78,153,403	77.2	44.7	34 49
Potatoes 1886 "	163,000,000	2,232,876	73,350,000	73.0	45.	32 85
Potatoes 1887 "	134,000,000	2,392,860	91,120,000	56.0	68.5	38 35
Tobacco 1885 lbs.	562,736,000	752,520	43,265,598	747.8	7.7	57 49
Tobacco 1886 "	485,000,000	672,153	33,465,000	700.0	6.9	48 30
Barley, 1885..bushs.	58,360,000	2,729,359	32,867,696	21.4	56.3	12 04
Rye, 1885..... "	21,756,000	2,129,301	12,594,820	10.2	57.9	5 92

Wool production and consumption in the United States from 1862 to 1886: Total production in pounds, 5,055,750,600.

Cotton cultivation in the United States has reached almost astounding proportions. Prior to 1793 the production was unimportant because of the difficulty of removing the seed. But when Whitney invented the saw-gin the American produce of the fibre overshadowed that of the rest of the world. The increase of production grew enormously, finding ready markets, however, both abroad and at home.

Sugar Product of Louisiana, 1823-1886.

Years	Hogsheads	Years	Hogsheads	Years	Hogsheads	Years	Hogsh'd
1823	30,000	1840	87,000	1855	231,427	1871	128,461
1824	32,000	1841	90,000	1856	73,296	1872	108,550
1825	30,000	1842	140,000	1857	279,097	1873	89,498
1826	45,000	1843	100,000	1858	362,296	1874	116,867
1827	71,000	1844	200,000	1859	221,840	1875	144,146
1828	88,000	1845	186,000	1860	228,758	1876	169,331
1829	48,000	1846	140,000	1861	459,410	1977	127,758
1832	70,000	1847	240,000	1863	76,801	1878	213,281
1833	75,000	1848	220,000	1864	10,387	1879	169,972
1834	100,000	1849	247,923	1865	18,070	1880	218,314
1835	80,000	1950	211,201	1866	41,000	1881	122,982
1836	70,000	1851	236,547	1867	87,647	1882	241,220
1837	65,000	1852	321,934	1868	84,256	1883	221,515
1838	70,000	1853	449,324	1869	87,090	1884	170,431
1839	115,000	1854	346,635	1870	144,881	1885	231,290
						1886	145,968

The average weight of the hogshead is reckoned at 1,137 pounds net

Consumption of Sugar in the United States, 1860-1886

Years	Tot'l consumption	Imported	Domestic
	Tons of 2,240 lbs.	Tons of 2,240 lbs.	Tons of 2,240 lbs.
1860	415,281	296,250	119,031
1861	383,819	241,420	122,399
1862	432,411	241,411	191,000
1863	284,308	231,398	52,910
1864	220,660	192,660	28,000
1865	350,809	345,809	5,000
1866	391,678	383,178	8,500
1867	400,568	378,068	22,500
1868	469,533	446,533	23,000
1869	492,899	447,899	45,000
1870	530,692	483,892	46,800
1871	633,314	553,714	79,600
1872	637,373	567,573	69,800
1873	652,025	592,725	59,300
1874	710,369	661,869	48,500
1875	685,352	621,852	63,500
1876	638,369	561,369	77,000
1877	666,194	577,194	89,000
1878	685,670	614,170	71,500
1879	743,174	631,174	112,000
1880	819,341	730,519	88,822
1881	918,345	790,978	127,367
1882	942,890	866,517	76,373
1883	1,051,015	908,717	142,289
1884	1,116,847	981,404	135,443
1885	1,097,445	996,569	100,876
1886	1,195,466	1,060,308	135,158

Consumption of Molasses in United States, 1860-1886

Years	Total consumption	Imported	Domestic
	Gallons.	Gallons	Gallons
1860	47,318,877	28,724,205	18,594,672
1861	40,191,556	20,383,556	19,808,000
1862	62,668,400	25,650,400	37,018,000
1863	37,569,088	26,569,088	11,000,000
1864	32,410,325	28,582,325	3,828,000
1865	35,185,038	34,335,038	850,000
1866	45,143,110	43,843,110	1,300,000
1867	49,323,171	46,776,465	3,000,000
1868	55,957,969	52,587,969	3,370,000
1869	54,361,092	47,961,092	6,400,000
1870	49,776,465	42,723,171	6,600,000
1871	52,065,784	41,165,784	10,900,000
1872	53,695,203	42,995,203	10,700,000
1873	51,485,526	41,985,526	9,500,000
1874	48,206,257	39,506,257	8,700,000
1875	58,608,734	46,418,734	12,190,000
1876	48,809,504	36,459,504	12,350,000
1877	39,965,906	27,065,906	11,900,000
1878	43,812,509	28,662,509	15,150,000
1879	48,704,682	34,504,682	14,200,000
1880	45,200,184	33,079,184	12,200,000
1881	41,986,677	25,986,677	16,000,000
1882	49,160,748	37,160,748	12,000,000
1883	48,493,065	29,436,310	18,966,755
1884	48,737,975	30,342,679	18,395,316
1885	41,363,043	26,709,435	14,653,608
1886	57,986,358	36,477,626	21,508,732

The sugar industry has steadily grown on the Mississippi delta since 1803, when there were 81 sugar estates. The crop is important both in Louisiana and Texas. Cane is also grown in other gulf states, specially in Florida, and to a small extent in South Carolina, Tennessee, and Kentucky. In the more northern localities it is produced mainly to make sirup.

Cotton Crop of the United States for 56 Years.
Years Ending September 1

Year	Bales	Year	Bales	Year	Bales	Year	Bales
1829	870,415	1843	2,378,875	1857	2,939,519	1872	2,974,351
1830	976,845	1844	2,030,409	1858	3,113,962	1873	3,930,508
1831	1,038,848	1845	2,394,503	1859	3,851,481	1874	4,170,388
1832	987,487	1846	2,100,537	1860	4,669,770	1875	3,832,991
1833	1,070,438	1847	1,778,651	1861	3,656,006	1876	4,669,288
1834	1,205,324	1848	2,347,634	1862		1877	4,485,423
1835	1,254,328	1849	2,728,596	to	No record	1878	4,811,265
1836	1,360,752	1850	2,096,706	1865		1879	5,073,531
1837	1,422,930	1851	2,355,257	1866	2,193,287	1880	5,757,397
1838	1,801,497	1852	3,015,029	1867	2,019,774	1881	6,589,329
1839	1,360,532	1853	3,262,882	1868	2,593,798	1882	5,435,845
1840	2,177,835	1854	2,930,027	1869	2,439,039	1883	6,9 2,234
1841	1,634,945	1855	2,847,339	1870	3,154,946	1884	5,714,052
1842	1,683,574	1856	3,527,845	1871	4,352,817	1885	5,669,021
						1886	6,550,215
						1887	6,513,623

NOTE.—The average net weight per bale is 440 lbs.

Tobacco Production of the United States in 1880.

Total acreage devoted to this industry.....638,841
Total production in pounds.....472,661,159

Tobacco Production of the United States in 1879.

Acreage devoted to this industry.....631,061
Total production in pounds.....469,816,203
Value of the crop.....$36,624,357

The production of wine and fruits in California has been of late years assuming great proportions, leading to a well-founded belief that the State will at no distant day be a powerful competitor in supplying the markets of the world with wine and fruit.

The soil of the Bermudas is poor. The surface is a kind of red earth, generally mixed with vegetable matter and clear sand. There are no streams or wells, and the inhabitants depend on the rainfall, collecting the water in tanks. About 1,000 acres of land may be called fertile, 1,000 fair, and 1,000 more, in favorable years, might be cultivated. Nevertheless, the growth of vegetation is rapid. The Bermudas cedar, really a species of juniper, furnishes timber for small vessels; mangrove abounds on the shores; prickly pear grows luxuriantly, and so does sage-brush. Citron, sour orange, lemon, and lime grow wild. Esculent plants and roots are obtained in perfection, among them being onions, Irish potatoes, tomatoes, beet-root, melons, pumpkins, and arrow-root of most excellent quality. Some medicinal plants, such as the castor-bean, aloes, and jalap require no particular cultivation. Coffee, indigo, cotton, and tobacco also grow spontaneously. Almost all the cultivated products are sent to New York. A few neat-cattle and sheep are reared, but the inhabitants keep a considerable quantity of goats.

Agriculture in the Bahamas can never become an industry of much importance, the soil, mostly thin and sandy, being unfavorable to it. The productions of the colony are oranges, bananas, cocoa-nuts, pine-apples, sugar-cane, corn, and vegetables. Numbers of sugar-mills have been established. There are large orange

orchards and pine-apple plantations; other products are cultivated in small patches scattered where the soil will allow of planting. Cotton and other fibrous plants flourish well, also tobacco, and the castor-bean. There is abundance of cabinet, dye, and building woods in the forests. Some sheep of fair quality, and some cattle and horses are reared; but the extent of even passable grazing ground is very small.

The simplest implements are used, namely, the hoe, spade, pick, rake, machete, and axe. With the axe and machete the farmer clears away the brush and chaparral; with the pick, spade and rake he loosens the soil between the rocks; and with the hoe he cultivates the plant and keeps down the weeds. Only a small portion of the population is engaged in tilling the soil.

The country is rich in marine resources, upon which the prosperity of the people largely depends; the pursuits being sponging, fishing, turtling, raking salt, gathering shells and berries, cutting dye and cabinet woods, trading, and wrecking.

There is hardly a tropical product to which the climate and soil of British Honduras are not adapted. In the forests and wilds are found cedar, rose-wood, bullet tree, fustic, lignum vitæ, sapodilla, Santa Maria, iron-wood, red and white pine, India rubber, and gutta-percha trees, and the sarsaparilla, cochineal-cactus, agave or pita, indigo, and many other useful plants or shrubs. The cocoa-nut flourishes, as does the cahoon palm, whose oil is expected to bring increased prosperity to the colony, and the ground-nut, locally known by the name of pinder (*arachis hypogea*), which yields an oil equal to that of olives. There is excellent fodder for horses and cattle. The usual varieties of tropical fruits, cereals, and vegetables, plantains, maize, yams, yucca, cacao, coffee, and tobacco are among the food supplies and luxuries of the people. The sugar-cane requires but little cultivation, and has been known to ratoon for over twenty years. Sugar is made in many parts of the colony, about twenty mills being worked by steam, and four by animal power. Most of the sugar is consumed at home. Fruits are cultivated and shipped to the New Orleans and New York markets.

In 1886 there were nearly 16,000 acres of land under cultivation. Land may be bought from the crown at from 4 to 8 shillings the acre, or leased at 10 pence per acre yearly.

Jamaica's soil is not so fertile as that of the greater portion of the other Antilles. In the north, a chalky marl prevails, while to the west and south the so-called Jamaica mould predominates, analogous to the warm yellow mould of Cuba, which is so favorable for the cultivation of the sugar-cane. Wherever this soil exists, sugar plantations abound. The island is abundantly supplied with fresh-water streams, except in the midland and western parts, which are singularly barren. The forests contain ballata, rose-wood, satin-wood, mahogany, lignum vitæ, ebony, logwood, fustic, cedar, and silk cotton-tree. Pimento, from which allspice is obtained, is indigenous; there is also bamboo, coffee, sugar-cane, cacao, maize, guinea-corn, and several kinds of palm, including the castor-bean; among the tropical fruits the chief are oranges, shad-

dock, lime, pine-apple, mango, banana, plantain, grapes, alligator-pear, bread-fruit, and tamarind. Cinchona, and good tobacco are also successfully raised. On the hills are cultivated English vegetables, and on the plains yams, yucca, ochra, beans, peas, and arrow-root.

After the emancipation of the negro slaves, the lands of their former masters were neglected. It was calculated that from 1833 to 1841, 653 sugar, and 456 coffee estates were abandoned, and the works suspended. The area under crops in 1878 was 121,457 acres; in guinea grass, 120,264; in pasture, 318,549; in wood, 1,217,596; leaving 942,134 acres of total extent not accounted for. The total acreage under cultivation in 1886 was 600,448, about 5,000 less than in 1885. The average sugar production annually may be set down at 91,821,620 pounds. Cattle farming yields considerable profit.

The Turks and Caicos islands, dependencies of Jamaica, are barren.

The group of the Leeward islands includes Antigua, Montserrat, St. Christopher, Anguilla, Virgin island and Dominica. The chief productions of Antigua are sugar, molasses, rum, and pine-apples, but much of the land has been allowed to lie idle in the hands of the older planters. Montserrat's chief staple is sugar. Many sugar works have steam-engines, but there are still some fine estates relying on the windmill; a few others have mills worked by animal power, and two or three by water-power. Within ten years past lime-juice, raw and concentrated, has become a staple for exportation.

In a good year the crop of sugar is about 2,500 hogsheads. Some 650 acres are planted in lime trees.

Sugar is the chief product of the islands of St. Christopher (or St. Kitts) and Nevis.

The sugar crop of 1884 amounted to 15,760 hogsheads, the average annual yield being 13,000 tons in St. Kitts, and 3,619 hogsheads in Nevis. In the latter nearly 6,000 acres are well cultivated. Nearly all the products of the tropics are cultivated in both islands.

Anguilla produces cattle, sugar, cotton, maize, tobacco, and garden stock, which last finds a ready sale in St. Thomas. The island's other products are phosphate of lime and salt, which is obtained from a lake in the interior. Barbuda, one of the lesser Antilles, situated among the Leeward group, is a little island ten miles long by eight broad; has a very flat surface covered to a great extent with woods. A part of it is fertile and under cultivation, where cotton, corn, sugar, tobacco, and indigo are grown. Rearing cattle is one of the principal occupations.

The Virgin islands make a small quantity of sugar. During the civil war in the United States, cotton, which grows luxuriantly, was planted. The peasants cultivate most of the land in small plots. They also raise a few cattle.

In Dominica, the land is very fertile; sugar is the chief product; but some fruit, cacao, coffee, indigo, arrow-root, and timber are also among the agricultural resources. The country abounds in rivers and rivulets, well stocked with fish, and there is abundance of game.

The annual fall of rain in the island of Trinidad is about 65 inches; the soil is fertile; the elevated parts are covered with

dense forests. The chief products are sugar-cane, coffee, and cacao; cotton, indigo, tobacco, nutmegs, cinnamon, and cloves are also raised.

Of the total area (estimated at 1,123,000 acres) the alienated acreage is as follows: Cultivated in sugar-cane, 52,168 acres; cocoa and coffee, 25,188; ground provisions, 18,053; cocoa-nuts, 2,767; total in crop, 98,171; pasturage, 6,242; uncultivated, 190,997; total alienated, 295,410 acres. The sugar production in 1886 was 61,495 hogsheads.

Barbados island produces indigo, cotton-wool, ginger, aloes, and several kinds of woods. It has the appearance of a full-cultivated garden. Sugar, since the introduction of African slavery in the 17th century, became a great staple of the island.

In 1863 there were 358 sugar estates; at the present time they exceed 500. Though very small, Barbados is the largest producer of sugar, of the British West Indies. Every other industry has been abandoned, because of the necessity of providing for its large population. A male day laborer is paid 20 cents per day, and a female 15 cents; children 8 to 10 cents. The expense of living is 60 cents per week for the male, and 45 cents for the female; their food being sweet potatoes, yams, rice, salt fish all the year round, fresh fish during the season. During the crop season they get, besides, a small quantity of molasses every Saturday. Sugar is made of three kinds: vacuum-pan, muscovado oscillated, and muscovado common process. Of the first about 4,000 tons yearly. The output has been as follows:

Years	Quantity		
1871	53,800	hogsheads	
1876	37,848	"	
1881	52,236	"	
1882	59,934	"	
1883	57,851	"	
1884	67,085	"	
1885	72,461	"	
1886	50,637	"	
1887	72,000	"	(estimated).

The percentage of molasses is 60 to 75 gallons per ton of sugar, of the muscovado common process.

The group of the Windward islands consists of the islands of Grenada, St. Lucia, St. Vincent, and Tobago.

Grenada is mountainous and abounds in streams. Between it and the island of St. Vincent are the smaller Grenadines, which are partly dependencies of St. Vincent, and partly of Grenada; the largest of the latter is Carriacou. Grenada is very fertile, producing fine cacao, spices and sugar, besides European vegetables, which grow freely. The cultivation of sugar does not progress much, but that of cacao makes rapid strides. Carriacou yields cotton, cacao, provisions, and live stock. Among the minor products of Grenada are yams, arrow-root, and charcoal.

St. Lucia has a productive soil. The mountains are covered with fine timber and dye-woods; the valleys are well watered. The chief staples of the island are sugar, cacao and spice.

There is a central Usine factory system for making sugar, which the colonial government established and has an interest in.

St. Vincent island has streams, which are small except when swollen by heavy rains. Its productions are sugar, rum, cacao, spices and excellent arrow-root; also cotton. The forests yield fine woods.

A large portion of the cultivated acreage is owned by one firm, and the negroes "squat" on the unsurveyed, and unoccupied crown lands.

Tobago is quite productive. Sugar, molasses, rum, cocoanuts, and live stock are its chief staples, though its minor productions are numerous.

The first sugar exported was produced upon an estate situated on the windward side of the island, in 1770. In 1780 only 3,000 hogsheads were shipped; in 1805 there were no less than 15,327 hogsheads exported. Cotton and indigo were at one time among the products.

The French islands of Guadeloupe, Martinique and their dependencies are noted for their productiveness.

The total area of the island of Guadeloupe under cultivation is 85,250 acres; 1,932 acres were cattle farms; 30,640 acres of savannahs; 106,258 acres of woods and forests; 69,689 acres were fallow. To sugar-cane, the staple of the island, were given 48,711 acres, to cacao 1,146, to racou or anatto 1,682; to tobacco 29½ acres. One of the chief sources of food of the island, manioc, occupied 11,614 acres; other articles of direct consumption occupied 11,246. It was computed that 43,780 persons were occupied in the sugar plantations, 5,760 in the coffee plantations, 504 in the cotton plantations, and 1,088 in the racou plantations. The total product was: sugar of all kinds, 679,300 cwt.; sirups and molasses, 568,326 gallons; taffia or rum, 298,850 gallons. The product of coffee, cacao, and racou was respectively 13,564, 2,102, and 10,663 cwts. The cassava, or yucca, 282,412 cwts.; and the other food substances, yams, bananas, arrow-root, etc., 118,340 cwts.; Campeachy wood, 4,542 cwts.; tobacco, vanilla, and cloves were also produced in small quantities. The estimated value of the whole was $5,671,130.

The Danish West India islands are St. Thomas and St. Croix or Santa Cruz. Previous to the abolition of slavery, in 1848, there were many sugar plantations in St. Thomas; but now a few vegatables, a little fruit and some Guinea grass form the whole production. St. Croix is fertile everywhere, excepting about 4,000 acres. One-third of the area is devoted to the cultivation of sugar cane, and one-sixth is pasture land; most of the remainder is either covered with worthless brushwood, or with scanty timber.

The sugar crops have been falling of late years, the result of diminished rainfalls, which probably was caused by the destruction of the forests Government constructed in 1876 a central factory, to which the juice of the cane is conveyed through pipes from the several plantations. Santa Cruz rum is considered a very superior article, some preferring it to other rums.

The Dutch islands of Curaçoa and St. Eustache are productive. Curaçoa obtains fr sh water only from rains or deep wells. Provisions have to be imported. Indigo, cotton and cacao, once cultivated, are now given up. Sugar, tobacco, maize, cochineal are produced, and cattle, horses, asses, sheep and goats reared. The tamarind, banana, cocoa palm, orange and various kinds of garden vegetables grow well.

A peculiar variety of the orange, (citrus aurantium curassuvisensis), which grows abundantly, is the main ingredient of the celebrated liquor or cordial known as curaçoa.

St. Eustace is covered with a wilderness of weeds. Besides yams the sugar-cane is cultivated, yielding about 30,000 pounds of sugar.

The fertility of the soil of Guiana is unsurpassed anywhere in South America. One-half of the territory at least is covered by dense forests, containing almost every kind of useful wood for building and cabinet work, as well as woods and plants for medicinal and manufacturing purposes. Almost all the intertropical fruits are found in great abundance. The wild flowers are of indescrib-

able splendor, among them being the Victoria regia. One-fourth of the country is devoted to agriculture, where maize, rice, yucca, yams, sweet potatoes, peppers and arrowroot are extensively cultivated. The soil is well adapted for sugar-cane, coffee, and cotton; tobacco and indigo are likewise produced. The remaining fourth of the territory comprises meadow plains covered with excellent pasture.

In 1877-8 there were in British Guiana about 120 sugar estates, and probably a dozen coffee plantations. Coffee, a staple of export in the early decades of this century to the amount of ten million of pounds, is now produced only for home consumption. The sugar industry has been subject to vicissitudes. When negro apprenticeship ended in 1839, the production fell from 66,000 hogsheads to about 38,500. The equalization of duties in England on free and slave-grown sugars, further reduced the production; in 1849 it was only 32,000 hogsheads. Since 1854, the industry has become greatly developed with the introduction of coolie laborers, and of improved machinery. It is understood that about 4½ million dollars of improved machinery have been applied to sugar-making between 1867 and 1876. The powerful rollers used express 60 per cent. of juice. The Demerara crystals command a high price for their purity and saccharine strength. The average yield of an acre is about 3,000 pounds. It is understood that at the present time the planting of coffee and cacao is attended to. Several abandoned coffee estates are being reclaimed. The planters for several years past devoted their whole attention to the sugar-cane, which yields nearly 92 per cent. in value of its exports. Labor is what the country stands in need of to extend the cultivation almost without limit. In 1884 there were 105 sugar plantations with an aggregate of 79,502 acres planted in sugar-cane. The yield of that year was 140,000 hogsheads, the bulk of the production being the high-class sugar known as Demerara crystals. There were likewise 2,513 acres of plantain cultivation. The coolies from the East Indies are growing rice extensively behind the sugar estates.

The natural products of the French portion of Guiana, also known as Cayenne, are numerous. Valuable trees abound, including the black cedar. Among the palms are the cocoa-palm, the oil-palm of Africa and the date-palm. Caoutchouc is common in the contested territory of the south. Medicinal plants and trees exist also. The chief staple of food is manioc; rice was cultivated to some extent; also maize, yams, arrow-root, plantains, bananas; the bread fruit is likewise known there. Guiana cacao is excellent. Coffee has been extensively grown since 1716. Vanilla is one of the common wild plants of the country. The clove and cinnamon trees have been acclimatized. The cultivation of the pepper, nutmeg, and cinnamon has been neglected. Among the productions are also found annato, sugar, cacao, indigo, pepper, and tobacco.

The forests of Dutch Guiana or Surinam abound in timber and cabinet-wood. Lack of labor and cost of transportation to the sea have precluded their utilization.

Besides the plantain, which is the poor man's staple of food, the country produces maize, sugar-cane, sorghum, coffee, cacao, edible roots, gumbo, and other articles of food; also cotton.

The average annual proportion of cereals in Europe is estimated at 5,153,808,000 bushels, about one-third being assigned to Russia; nearly 15 per cent to Germany; nearly 14 per cent to France; over 11 per cent to Austria-Hungary. Europe produces a little over 17 bushels per capita of her population. Calculating the average consumption for food, seed, and various manufactures, Europe produces about sufficient to cover her needs, except in wheat and some other breadstuffs, which must be supplied by importation. The industrial plants—colza, flax, hemp, sugar-beet, hops and tobacco are grown in considerable quantity in countries where a varied culture is pursued. Spain, Italy, and France produce more wheat than any other grain. Finland, Switzerland,

and Germany produce a great deal of rye; Ireland, Hungary, and North Germany oats; Russia leads in barley, followed at a distance by Great Britain, Prussia and others. Indian corn holds the first place in Roumania, Servia and Portugal. Buckwheat does not count for much, except in Holland and France. Oats is the leading crop of Europe, and next come wheat and rye. Irish potatoes are produced in various countries, Ireland leading them all, with 23 bushels per head of the population. The number of domestic animals existing in 28 European States is given as follows for 1876: 31,573,663 horses; 4,136,031 asses and mules; 89,678,248 neat-cattle; 194,026,236 sheep; 42,686,493 swine; 16,931,034 goats. Total, 379,031,705. Russia, Denmark, Finland, and Hungary have the greatest number of horses; Ireland, Denmark, Bavaria, Finland, Norway, and Wurtemberg of neat-cattle; Spain, Great Britain, Roumania, Denmark, Hungary, and Norway of sheep; Hungary, Spain, Denmark, and the German duchies of swine; Greece heads all the others in goats, followed at a long distance by Spain, and Portugal next.

MINERAL RESOURCES.

It is safe to affirm that the mineral wealth of Mexico is greater than that of any other country, without excepting Perú or Bolivia; and that there is good reason for the belief that there are richer undiscovered deposits remaining than any which have thus far been brought to light. The mountains in the extreme south-east contain extensive veins of silver, copper, and lead. Oajaca possesses a wealth of precious metals in her central table-land. The Cerro del Mercado is one vast mass of iron.

The Nahuas or Aztecs were acquainted with gold, silver, copper, tin, and lead. The latter is merely mentioned, nothing being known as to where they procured it, or to what uses it was put. Our information on the manner they obtained any of the metals is very meagre. It is known that gold was brought to the valley of Anáhuac from the southern provinces; that silver and tin were obtained in the mines of Taxco and Tzompanco; that copper came from the mountains of Zacatollan, the province of the Cohuixcas, and from Michoacán. In certain regions were found on the surface of the ground gold nuggets and masses of native copper. Gold was mainly taken, however, by divers from the beds of rivers. It was kept either in the form of dust, in small tubes or quills, or cast into small bars after being melted in small pots with the aid of hollow bamboo blow-pipes, made to answer for bellows. These metals were also obtained from the solid rock, to which end extensive galleries were opened. In their time silver was more scarce than gold. Quicksilver, sulphur, alum, ochre, and other minerals were collected to some extent, and applied to various purposes, one of them being the preparation of colors. It is a well established fact that, previous to the Spanish conquest, the Aztecs were ignorant of the uses of iron, though the metal was abundant.

The Spaniards opened mines in Mexico as early as 1526, and worked them till 1700 to some extent. The discovery of the famous lodes of San Luis Potosí and Zacatecas, and later of Pachuca, Guanajuato, and others, wrought a complete change. The government, while desirous of developing this industry, hindered it by means of restrictive ordinances, with the object of securing the crown's share. Miners were obliged to barter their metal for

money coined in the city of Mexico; restrictions were placed on the exploitation of the scanty deposits of cinnabar, while the crown assumed the exclusive right of selling quicksilver.

In silver, Mexico has until recently produced more than any other country in the north. She eclipsed her South American rival by giving to the world the grand process of amalgamating with quicksilver, which was discovered by a miner of Pachuca about the middle of the 16th century. The largest development in mining took place in the second half of the 18th century. The result of the creation of the Junta de Minería was an increase of 25 per cent. in the production; at the commencement of the present century the average yield was of $23,000,000 a year, against less than $10,000,000 in the years preceding 1750, somewhat less than $5,000,000 a year prior to 1700, and $2,000,000 in the latter part of the 16th century; while the whole yield before 1548 had only reached $1,500,000, most of which consisted of presents and tributes. Something should also be added for metal used in manufactures, or smuggled out. The increase spoken of resulted from a decrease in the price of quicksilver, and from a somewhat more liberal colonial policy, which had its recompense in an increment of receipts, reaching in the period from 1765 to 1789, $43,641,000.

The chief districts were Guanajuato, Catorce, and Zacatecas. The product of the first-named in the 18th century, and down to 1809, was represented in 37,290,617 marks of silver, and 88,144 marks of gold, valued at $318,935,000; of which the Valenciana mines yielded in 1771 as much as $2,500,000; Catorce gave from 1778 to 1810, $4,000,000 yearly; and the whole intendencia of San Luis Potosí, to which it belonged, 92,736,294 marks of silver from 1556 to 1789, representing $788,258,000; Zacatecas produced from 1553 to 1732, $832,232,000; and in 1808 equalled Guanajuato, the Veta Negra alone yielding 700,000 marks of silver in half a dozen months. The war for independence destroyed the mining industry.

The production fell from $27,000,000 to $5,000,000. The mines were finally abandoned, and allowed to fill with water, or to cave in. They were pretty much in the hands of *buscones* or *gambusinos* throughout that period.

After the organization of the republic inducements were offered to foreign capitalists to revive it; but lack of experience on the part of several men who embarked in the business, together with a rise in the price of quicksilver, the expulsion of Spaniards, and the pernicious effects of internecine troubles, repeated changes of rulers, and forced loans, counteracted judicious legislative measures.

The efforts of the several companies engaged in this herculean task lasted from 1824 for about ten years, with heavy loss to the stockholders, mainly due to lack of transporting facilities. The most prominent of these companies were:

Real del Monte,	with a capital	invested	of	.....	$2,000,000
Anglo-Mexican,	"	"	"	.....	750,000
Tlalpajahua	"	"	"	.....	900,000
United Mexican	"	"	"	.....	600,000
Mexican,	"	"	"	.....	.....
Catorce,	"	"	"	.....	300,000
Elberfeld,	"	"	"	.....	637,760

There was but a small increase in the production during the first three decades of the republican government. Indeed, the country went through many sad experiences and vicissitudes, which retarded its general prosperity.

The yield from 1823 to 1852 has been reckoned by the statistics of the mints at $401,000,000; Zacatecas leading with $120,000,000, followed by Guanajuato and Mexico with $90,000,000 and $60,000,000 respectively. San Luis Potosí, Durango, and Jalisco came next with from $25,000,000 to $19,000,000. The total might fairly be augmented with at least $2,000,000 yearly which escaped registration.

The state of Chihuahua is noted for its silver mines, many of them rich in virgin ore, only partially worked. In late years much American capital has been invested there in mining. Formerly the crudest methods only were employed, but recently improved American machinery has been introduced and the annual output has been greatly augmented. The business is still in its infancy, but gives signs of soon attaining to large proportions.

The great argentiferous wealth of Mexico is not derived so much from the quality of the silver ore as from the prodigious abundance of it. The ore is generally of low grade—three to twelve marks for every twenty quintals. Argentiferous lead ores exist in great quantities throughout the country, and especially in Sonora. In that state from 1875 to the present time it is found that the ore must be transported a distance of ninety miles, costing at least $20 per ton.

One hundred tons of ore, merely for transportation to the reduction works, fuel, and labor, and necessarily requiring 20 kilns, entailed in 1875 the following expense:

Transportation	$2,000
Fuel	2,300
Labor	60
Total	$4,360

Adding cost of reduction, general expenses, etc., the ore at 6 marks per heap would scarcely cover expenses. At present, with new appliances, including the Pilta oven, the whole expense on 100 tons of ore is only $97.20, or a saving as compared with 1875 of $4,262.80. Thus science has converted a mineral district which formerly could not be worked because its ores were low grade, into one yielding great wealth. The low price of silver has been compensated by the great diminution in the cost of production.

There are many abandoned mineral lands whose yield is only three marks. The drawbacks in Chihuahua are lack of capital and excessive taxation; in Guanajuato excessive taxation; in Zaculpam, want of capital; in Catorce, heavy taxation and want of communication; in Sinaloa, want of capital; in Sonora, district of Altar, want of capital—work with foreign capital suspended because of hindrances by the custom-houses; Sonora, district of Guaimas, want of laborers, owing to the Yaqui war; Sonora, Hermosillo, want of capital, heavy taxation; Zacatecas, Mazapil, want of capital and of suitable methods of exploitation; Zacatecas, Nieves, and Villanueva, want of capital and excessive burdens. It is not the depreciation of silver which affects the mining industry; it is the want of capital and excessive taxation, the latter driving away the former.

The annual product of the mines in Northern Mexico is as follows:

Coahuila, 2 mines			$44,419
Chihuahua:			
	Parral	$859,816	
	Batopilas	278,976	
	Cosihuiriachic	141,128	
	Uruachic	128,876	
	Urique	107,026	
	Guadalupe y Calvo	102,686	
	Ten others	279,686	1,906,194
Sonora:			
	Sonora (mine)	500,009	
	Promontorios	320,674	
	Justina	176,449	
	Six others	190,833	1,187,965
	Total		$3,140,578

Probably more than one-half of the products is from mines controlled by American citizens.

The various processes employed at the reduction works, go under the names of patio, tonel, lixiviation, fuego, and pan. The patio system consists of amalgamation with quicksilver. When the mass under treatment is worked, it is washed in a lavadero or settler, and the bright quicksilver, charged with silver, is strained and retorted. The pella, or strained quicksilver, is then burned or retorted, and the silver melted into bars. This product is termed *plata del patio* or *plata pié*, this latter name being an allusion to the feet of men or animals employed in working it. This is the process as invented by the celebrated Mexican miner Bartolomé de Medina, of Pachuca, before mentioned. It was used in Mexico two centuries before it came into use in Europe. It is now employed wherever mining is carried on, though supplemented to some extent by other processes, particularly lixiviation.

The next step is to concentrate the sulphuret from the pulp on the inclined brick tables. This gives the sulphurets (polvillos), which are mixed with litharge, and smelted in small mud furnaces, which produces the *plata fuego*, or fire-silver, in small cakes. By the processes explained from 97 to 98½ of the assay value of the ores is extracted.

Another method is smelting; and in later times lixiviation has been in vogue. In several states, a number of mills have discarded their barrels and pans, and substituted leaching-tubs. The rock is crushed dry, and passed through screens of twenty to thirty meshes to the inch. It is then roasted in reverberatory furnaces with salt. The roasted ore is then subjected to the water process, being kept in large tanks or tubs, constantly covered and run over by clear water during a number of hours; after which the water is drawn off, and a cold solution of hypo-sulphate of soda is made to pass through the ore until it is ascertained that the solution carries no more silver. The silver carried by the hypo-sulphate solution is precipitated by the addition to that solution of another solution of quicklime and sulphur, known as calcium sulphide, which is made by boiling lime and sulphur. After the precipitation, and the running off of the precipitating liquid, the silver appears as a sulphide, is put into canvas filters, dried, roasted in reverberatory furnaces to carry off the sulphur, and then melted

into bars. If the operation has been carefully performed the bullion resulting will be from 900 to 1,000 fine. The solution is pumped back into the tanks to be used again. In later years American machinery has been introduced.

The following has been the production by the several processes, in the fiscal year 1886-87:

	Kilogs.	Gs.		
Patio	449,858	777; 66.98	per cent of the production	
Tonel	28,047	864; 4.18	do.	do.
Lixiviation	27,466	575; 4.10	do.	do.
Fuego	152,665	279; 22.76	do.	do.
Pan	13,808	589; 1.96	do.	do.
	670,841	584; 100.		
Add to the above, for worn out coin and wrought metal	2,085	045		
	672,926	629		

Standard, or pure silver...661,838.619, at $39.109 per kilog., $25,897,981.75
Standard, or pure gold....32,226,188, at $648.529 per kilog., $548,414.71
Total value.....$26,446,396.46

But the present value is $37.30 per kilog. of silver, and $613.76 per kilog. of gold, which will make the value of the silver $24,686,580.48; and of the gold $510,792.81; and the grand total will then be $26,197,373.29.

The ores were obtained in the mines situated in Coahuila, Colima, Chihuahua, Federal District, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Puebla, Oajaca, San Luis Potosi, Sinaloa, Sonora, Tepic, Zacatecas. There are eleven mints in the republic of Mexico. During the fiscal year 1878-79 the total value coined was only $22,821,183, of which $658,206 were in gold pieces. In 1879-80, $24,536,584, of which only $521,826 were of gold.

Gold, silver, and copper coined in the five years from 1880 to 1887.

	Silver.	Gold.	Copper	Total
	Dollars	Dollars	Dollars	Dollars
1880-81	24,617,395	492,068	42,259	25,151,722
1881-82	25,146,260	452,590	11,972	25,610,822
1882-83	24,063,921	407,600	—	24,491,521
1883-84	25,377,378	328,698	—	25,706,076
1886-87	26,844,081	398,647	200,000	27,242,678

Until very recently the mints were farmed out to private parties or companies.

Money coined in Mexico from the foundation of the mints in the colonial period to June 30th, 1887:

	Gold	Silver	Copper	Total	Avg. p. yr
COLONIAL PERIOD.	Dollars	Dollars	Dollars	Dollars	Dollars
Macuquina, 1537—1781	8,497,950	752,067,457	200,000	760,765,407	
Pillar, 1732—1771	19,589,014	441,629,211		461,518,225	
Bust, 1772—1821	40,391,447	888,568,989	342,893	929,298,329	
	68,778,411	2,082,260,657	542,893	2,151,581,961	7,549,410
INDEPENDENCE.					
Iturbide's bust, 1822-23	557,892	18,575,570		19,182,962	
Republic, Eagle money, 1824 to June 30, 1877	48,275,142	819,348,694	5,312,546	872,936,382	
	48,832,584	837,924,264	5,312,546	892,069,344	89,206,934
REPUB. EAGLE MONEY.					
From July 1st, 1877, to July 30, 1887	4,742,273	247,167,239	335,727	252,235,339	29,223,584
Total coinage	3,295,886,644				

Nickel money coined from July 1st, 1877, to June 30, 1887, amounted to $4,000,000. Coinage during the fiscal year 1886-7, $27,433,974, of which $398,647 was gold, $191,296 copper; and the rest, $26,844,031, silver.

During late years much attention has been devoted to iron and coal deposits in Mexico; and with the development of railway facilities, iron and coal mining will become important industries. The government has every inducement to encourage these enterprises. The production in Mexico of steel rails is of itself a great object. Their price in England in 1881 was $28 per ton, when placed in the city of Mexico $93.32, in San Luis Potosí $101, in Celaya $123.32. The extent and locality of coal deposits in Mexico are yet unknown, but explorations have shown that they exist in Tlaxcala, Oajaca, Michoacan, Huasteca, Morelos, and especially in the districts of Matamoros, Chiautla, and Acatlan in Puebla.

Between 1804 and 1868 the yield of precious metals of the five republics of Central America was estimated at $21,200,000, of which $13,800,000 was in gold, and $7,400,000 in silver. Since the latter date the average yearly supply has been roughly computed at $300,000 in gold, and $200,000 in silver.

Guatemala is not a mining country, though in the latter part of the 18th century the district in the Alotepec mountains yielded large quantities of silver, and between 1858 and 1865, 621,000 ounces were obtained from it. The river sands in the department of Chiquimula are auriferous, and are washed by the Indians. Gold placers in the department of Izabal were also being worked, and there are a few very promising silver mines. There are also deposits of lead, cinnabar, coal, kaoline, marble, etc.

Between 1879 and 1883 the Guatemala mint coined $974,957, all in silver pieces from $1 to 3⅛ cents.

In 1860 and for some years previously, about $400,000 in bullion was exported annually from Honduras, most of it being gold gathered by the Indians from shallow washings. Silver ores are abundant, being found principally in the Pacific group of mountains, while the gold washings are the most numerous on the Atlantic side. The mineral districts in Tegucigalpa, Choluteca, and Gracias are very rich in silver, the chief supplies of gold being from the washings of Olancho; for though gold mines abound in Honduras, only a few have been worked. The Guayape, a tributary of the Patuca, and the Jahan rivers, and the streams running into them are the richest in auriferous sands.

The mineral wealth of Honduras is engaging the attention of foreign capitalists, companies having been formed in the United States and elsewhere to work the mines. Under the auspices of American companies several abandoned mines have been reopened, and a good wagon-road has been built from San Lorenzo on the Pacific, by way of Tegucigalpa to Yuscarán, 114 miles. The prospects of remunerating results are good. Nearly all the capital invested in mining in Honduras belongs to Americans; it is difficult to ascertain the amount, but it rises far into the millions, and is constantly increasing. The only investment of other foreign capital is in a mine near San Pedro, belonging to a French company. The mines organized, or re-organized, under the improved mining system are in a preparatory state, and have yielded but little bullion. Consequently no dividends, worth mentioning, have been as yet declared.

The following are the principal mines in the Tegucigalpa region, which were organized, or began to be so, in 1886: the Hondo company of Chicago has placer mines in the department of Olancho. The Hondo and San Miguel has placers in Olancho. The Campbell Reduction Company has a quartziferous mine of free-milling gold ore in Olancho. The Burke's Concession Company is the

largest mining grant of Honduras, including many miles, probably fifty, of the Guayape river, with a distance of 500 varas width on each side of the river. As many miles of the river Jalar were also granted to the company, with a width of 600 varas on each side of the river. The government is to participate in the profits, this being the only grant in which it has reserved the right. Within the limits of the granted territory, all of which is in Olancho, gold undoubtedly exists in abundance. Minas de Oro, near the town of the same name, have proven quite valuable. They belong to several Americans. San Márcos, at Sabana Grande, about fifty miles from the Pacific coast, at an elevation of 3,500 feet above the level of the sea, is also rich. There are several other mines in the same district, known to be valuable, such as the San Bartolo and El Plomo. The Santa Lucía Mining and Milling Company, and the Rio Chiquito Mining Company. The ore is silver, carrying some gold. Los Angeles Mining and Smelting Company of New York owns the Animas silver mine. The New York and Honduras Rosario Mining Company's claim is at San Juancito, thirty miles from Tegucigalpa. This is said to be the best-established and most extensively operated mine in Honduras. There are other rich mines of well-known value in Honduras, and especially at Yuscarán, and nearer to that place than to Tegucigalpa. The Zelaya mine, about five miles from San Juancito deserves especial mention. Gold abounds in Honduras, but to obtain it hard work, patience, and money are required. The gold deposits average about thirty feet in depth, with the richest portions near the bed-rock. Heavy machinery is therefore necessary. To carry it over a country without roads, is very expensive. On the other hand, persons coming with the necessary capital—at least $20,000—to engage in mining, will be sure of receiving concessions 250 varas long by 100 to 200 varas in width, as well as privileges and protection. The mining laws are exceedingly liberal, foreigners having the same advantages as natives; its mining supplies imported and bullion exported being free from duties. Honduras also has mines of copper, iron, platina, cinnabar, zinc, and coal. Opals are found in Gracias.

A newspaper issued at Tegucigalpa, speaking of the New York and Honduras Rosario Mining company, says that it has returned in 1887 about half a million dollars; and that its levels, stopes, and winzes were in the best condition, with thousands of tons of good milling ore in sight.

In Salvador, the only deposits of precious metals are found in the portion of the state which is geographically connected with the mountain system of Honduras. There are rich mines of iron near Santa Ana, and of coal in the valley of the river Lempa and some of its tributaries, covering a region 100 miles long by 20 in breadth.

In the department of San Miguel, bordering on Honduras, the silver mines of Tabanco, Encuentros, Sociedad, Loma Larga, Divisaderos, Capetillo, Santa Rosalía, and others have yielded largely. The group called Minas de Tabanco is easily worked, and at one time yielded $1,000,000 a year, though only the rudest methods were employed. The silver of the mines above mentioned is in combination with galena and sulphuret of zinc. In 1882 silver ores were taken out to the value of about $700,000. Several new silver lodes have been recently discovered, and claims for them have been presented by the discoverers. The working of iron mines commenced in 1882.

Nicaragua possesses an enormous wealth of minerals which, except on a small scale, have not as yet been developed. Gold, silver, zinc, iron, copper, lead, tin, and antimony are found in abundance, and there are also deposits of gypsum, marble, alabaster, lime, saltpetre, etc. The entire northern frontier abounds in silver. Gold veins are found in the cordillera, extending to the San Juan river, the principal one crossing the Machuca river. The metal is almost pure when washed from the river beds, but when dug out of the earth is more or less mixed with silver.

In the districts of Juigalpa and Libertad hundreds of mines have been entered, and the whole upper region of the Coco is rich in minerals. The mines are worked in the most primitive fashion; the crowbar being used instead of gunpowder, which is considered too expensive. Miners earn only $8 to $10 per month with rations.

The republic of Costa Rica is less favored in mineral wealth than the other states of Central America. However, there are mines of gold, silver, copper, iron, nickel, zinc, lead, marble, and other precious products of the mineral kingdom. Those of gold and silver are the only ones worked thus far.

The auriferous region of Monte del Aguacate is the best known in the republic. The mines situated there and in the Cuesta del Jocote were worked by foreigners at a moderate profit. Between 1829 and 1880 the coinage of the Costa Rican mint was $2,951,808 in gold, $563,048 in silver, and $1,662 in copper, or a total of $2,922,138.

Colombia's mineral wealth consists of gold, silver, platinum, copper, iron, lead, mercury, antimony, coal, emeralds, amethysts, amber, rock salt, lime, etc. Owing to lack of facilities of communication this wealth remains almost untouched.

The great gold and silver bearing regions are Antioquia, Darien, Cauca and Tolima. The gold mines of Antioquia have been worked for upwards of three centuries, and their products from the time of the conquest exceed two hundred and fifty million dollars; and yet deposits exist which are far from exhausted. There are, besides, large and unknown portions of territory, particularly toward the north of the department, which are believed to have the precious metals. In 1875 there were in Antioquia nearly one hundred lode mines working, and some 15,000 men and women employed in them. In the department of Cáuca it is calculated that the value of the precious metals obtained since the conquest has been no less than £242,000,000, of which $123,000,000 proceeded from the Chocó mines, and $116,000,000 from mines in other parts. The isthmus of Darien has been renowned from the earliest days of the Spanish conquest for its gold deposits. During the conquest the Spaniards got much of the metal from the natives, and in after years the crown derived a considerable revenue from the mines, particularly those of the Cana district, which for years employed thousands of men. They were not actively worked, however, till the second half of the 17th century. The Espiritu Santo was the most valuable one. In 1708 the king's fifths amounted to $216,000. These mines were several times plundered by buccaneers. In 1684, Harris carried away 129 pounds of gold, and in 1702 another raiding party stole 60 pounds. The yield of the Cana mines came to be 18,000 to 20,000 pounds annually. But in the midst of the greatest productiveness they were subjected to obstructions and troubles, which compelled their abandonment. Indian hostilities rendered it necessary to give up the La Plata and Miraflores mines. Then the cruel treatment inflicted on the poor natives rapidly diminished their number. Even after negroes were brought from Africa, Indian towns had to contribute one out of seven of their inhabitants to work in the mines, which service bore the title of *mita*. Finally the system was discontinued by royal order in 1729, in these words, 'No permita la Audiencia que á ningun indio se le obligue á la labor de minas.' This measure left the mine owners almost without hands. The silver mines of the rich districts of Mariquita and Pamplona thus received their death-blow. D'Elhuyar wrote the viceroy in 1785 that, generally speaking, the mines that the old miners had been exploiting in Mariquita were almost in their primitive state. The war of independence and subsequent internecine troubles brought the mining industry to a full stop. It has revived but slowly. The Santa Ana silver mine, in Tolima, yielded from 1826 to 1873, three and a half million dollars, and afterward failed. The Magdalena region has gold, but the deposits are not worked. Fine coal is abundant in the vicinity of Bogotá; platinum is likewise found, as also silver and emerald mines. Indeed, this portion of the republic possesses great mineral wealth, which lies dormant. The emerald mines of Boyacá are not worked. From 1800 to 1882 the product of gold and silver in Colombia was $216,000,000, and from 1537 to 1800, $414,000,000, or a total of $630,000,000, of which $74,000,000 may be credited to the isthmus of Panamá. Cinnabar and manganese are also reported to exist on the isthmus, coal in Chiriquí and Bocas del Toro. In 1886 miners and prospectors from the mining districts of the Pacific United States rushed to Panamá en route to the gold diggings of Tolima, Antioquia, and the Chocó. At the same time two companies were organized in Boston to mine on the Atrato river. Such was the eagerness awakened in the United States to engage in mining in Colombia that a little

word of caution is not out of place. It must be borne in mind that in the gold and silver producing regions labor is scarce, food high-priced, and roads do not exist. One more difficulty is that the language of the country is unknown to most of the persons contemplating to try their fortune in those parts.

The Venezuelan gold-fields are very rich, though as yet not the most productive. Those of the Orinoco are said to be the richest in the world. Many towns owe their existence to the mines. There is coal near Coro. Asphaltum, copper, petroleum, silver, tin, salt, and sesqui-carbonate of soda are abundant; but these valuable minerals are not worked as they ought to be. There is a pitch lake at the mouth of the Pedernales river on the gulf of Paria.

In vein-mining considerable progress has been made. The returns of gold from the Yuruary mines for the year 1884 were 234,292 ounces, valued at $1,171,460 in United States money, against 179,166 ounces in 1883. Other mines, namely: the Callao, Chile, Panamá, Potosí, Nacupay, etc., yielded in that year 294,292 ounces. The total value of the mineral product in 1884 was computed at $4,452,050, of which $3,248,385 was in gold, and the rest mostly in copper. In 1886, 218,000 ounces of gold were exported from Ciudad Bolívar alone, against 172,037 ounces in 1885; from 1866 to 1884 (19 years) the export aggregated 1,557,568 ounces, valued at $30,227,840. A large amount of English capital—some $16,000,000—was, in 1884, employed in gold mining in Venezuela. The New Quebrada copper mine sent to England 3,351 tons of fine copper in 1885, against 2,950 in 1884, 3,470 in 1883, and 2,886 in 1882.

Gold is brought down by most of the streams descending from the eastern declivities of the Andes in Ecuador. Gold mines were in former times worked on the high mesas of the cordilleras, but like those of silver and quicksilver have been abandoned for many years past. There are at present a few gold mines in the mountains near the coast. Iron and copper, antimony, manganese, sulphur, salt, coal, and coal-oil are found, but the first two are the only ones that are remunerative. Sulphur is produced to some extent.

Brazil possesses an immense wealth of mineral products, including a large variety of precious stones. Diamonds, emeralds, sapphires, rubies, topazes, beryls, tourmalines (black, blue, and green), amethysts, garnets, rock-crystals, opals, chalcedonies, agates, and carnelians are found in many places. There are also deposits of gold, silver, mercury, copper, coal, bitumen, sulphur, salt, saltpetre, manganese, alum, copperas, galena, lead, and iron, all in more or less abundance. Marble, granite, lime, potter's clay, and sandstone may also be had.

Diamonds were first discovered in the Serra do Espinhaço, near Diamantina, about 300 miles north of Rio Janeiro, in 1786. The diamond-producing soil extends along the sierra to the northern borders of the province of Minas, along the valley of the upper Belmonte, and in the interior of the province of Bahia, as well as in the mountains situated southwest of the sources of the São Francisco. The richest mines are in the Serra do Frio. Diamonds of smaller value have also been found in other parts. Some stones of considerable size are occasionally discovered. One picked up in the Chapada of Bahia weighed 76½ carats, and when cut into a drop-shaped brilliant, proved to possess extraordinary beauty. During the Portuguese rule 232,000 carats of diamonds, valued at $17,000,000 were mined. It was from the Brazilian fields that the crown of Portugal got the famous Southern Star and Abacete diamonds. Barely 1,000 men are employed where at one time 80,000 found occupation. The fact is that the rich diamond fields of Brazil are nearly exhausted. However, some foreign companies obtain from abandoned mines about $1,500,000 a year. Emeralds and the other precious stones are all found in Minas Geraes; opals, chalcedonies, agates, and carnelians exist almost everywhere in the empire. Rock-crystals, large and pure, in Minas, Goyaz, Sao Paulo, and Paraná. Garnets, though abundant, are of inferior quality. Gold exists in quartz veins over

a large area of the province of Minas Geraes, near Ouro Preto; the richest gold mines of Brazil are here. The Morro Velho mine is on the western side of the valley of the Rio das Velhas, not far from Sabará. The mines of Gorgo Seco, about twenty miles east of Morro Velho, on the opposite side of the Velhas, were at one time very productive. A company owns a tract of twenty-one square miles not far from Morro Velho. Other mines have been worked at no great distance. Much of the remaining portion of Minas, and especially the upper basin of the Sao Francisco is very auriferous. In northern Brazil the only gold mine opened is the Tury-assú, in the province of Maranhao. Many grants have been made of other places in several provinces. Gold washings occur in almost every province, but particularly in Minas Novas, 200 miles north of Ouro Preto, where the metal is found in grains or nuggets. The work of washing is done in a very primitive manner. Gold in Brazil is always mixed with silver. There are no statistics to tell us the production of gold. The registered exportation was in 1883-84, 1,166,855 grams, valued at $672,695; in 1884-85, 1,354,794 grams, valued at $780,625; but the production must have been much larger: a great deal of gold must have been smuggled out. Silver is found in many of the galenic formations in almost every province. On the Araçoiva hill, in the municipality of Sorocaba, in Sao Paulo, silver was obtained nearly 200 years ago. Mercury abounds in the province of Paraná, not far from the capital; and copper in Matto Grosso, Goyaz, and Minas, near the capital of Bahia, in Maranhao, and Ceará; but chiefly in Rio Grande do Sul. The mines at San Antonio das Lavras, near Caçapava, yield sixty per cent. of pure metal. In Santa Catherina, between the plateau and the sea, is one of the Brazilian coal basins; along the banks of the Tubarao, beds of bituminous coal of fair quality are exposed. Three distinct fields have been traced in Rio Grande do Sul; one, the largest, in the valley of the Joguarao (boundary of Uruguay), and in that of the Candiota, an area of about fifty miles by thirty miles; the second, in the valley of a tributary of the river Jocahuy near the centre of the province; and the third, near the village of Sao Jeronymo, on the bank of the Jocahuy. The Candiota field is being worked near the south coast of the province of Bahia. A Brazilian company has been working a coal mine at Arroco Dos Ratos, in Rio Grande do Sul, turning out about 2,000 tons per month. Sulphur in the native state is found in the province of Rio Grande do Norte, and a small quantity in Rio Grande do Sul; also at Turquin, and Corrego in the district of Minas Novas, of Minas Geraes. Saltpetre occurs with salt over a large area of Minas Geraes and Bahia, and in the calcareous caves of the Rio Sao Francisco valley, from the city of Ouro Preto downwards. There are phosphate deposits on the island of San Fernando de Noronha, about 200 miles off Cape San Roque, and also on other small islands. Saline effervescence is noticed in many localities in the drier portions of the Brazilian plateau. Efflorescences of nearly pure sulphate of magnesia are found in the valley of Rio das Velhas in the Sao Francisco basin, and in the province of Ceará. The iron mines of Iparema in the province of Sao Paulo seem to be the only ones in operation. Oil-producing shales were worked in Taubaté, province of Sao Paulo. In the province of Bahia tufa deposits were being exploited for oil, yielding about 666 litres.

Bolivia has a wealth of precious metals, as well as of several of the useful ones. She possesses not only gold and the apparently inexhaustible silver mines of Potosí, but also copper, iron, tin, coal, and sulphur. Precious stones, chiefly the hyacinth and opal, likewise are found in her territory. Nitrate of soda abounds, and guano deposits exist on the coast. The latter, however, have recently become Chilian property.

The mineral productions of Bolivia have given a very high importance to this portion of America. Mining, is, however, in a rather poor condition at present. Gold is found in considerable quantities in the mountainous parts. The Illimani mountain is supposed to contain a great deal of gold. In the 17th century an Indian found at a short distance from La Paz a mass of native gold, for which $11,269 was paid, and it finally went into the cabinet of natural history at Madrid. But most of the gold is found in the form of nuggets, in lavaderos or gold-washings, in the beds of rivulets. The most productive are those of Tipuani, streams descending from the snow-capped summits of the cordillera of Ancuna, some sixty leagues to the east of the city of La Paz. These washings were worked in the time of the Incas. The gold-washings and quartz veins of Choquecamata, in Cochabamba, were also famous, yield-

ing down to 1847 some $40,000,000. Several other districts in the departments of Potosí, Chuquisaca, Santa Cruz, and Tarija, are also rich in gold. Most of the mines are abandoned.

Silver at one time was the great metallic production of Bolivia. The mines of the Cerro de Potosí were next to those of Guanajuato in Mexico, for their wealth. The records kept at Potosí of the fifths that accrued to the royal treasury from 1545 to 1800 show that no less than $823,950,000 were coined in that period, and if the other products of the mines are added, the aggregate obtained from the mountains of Potosí must have been at least $1,647,901,018 in those 255 years. The Portugalete mines were also very rich. The prosperity of Bolivia, depending mostly on the mining industry, sank very low during the war of independence, and subsequent political troubles. Potosí declined in population from 130,000 souls to less than 10,000. English capitalists tried in vain to revive the industry. Of the large nmmber of forges which operated previously to the revolution, scarcely one remained at work. There are several other silver mines in Chichas, but scarcity of water and their inaccessible position diminish their value. The celebrated mines of Lanrani, in Sicasica, are abandoned. In 1870 deposits were discovered at Caracoles. In 1858 twenty-two companies were working 46 silver mines in the province of Potosí, and the yield in 1856 had been nearly one million dollars. In late years this mining region has revived, again yielding of its wealth, owing to the enterprise of the Anglo-Bolivian company. The Huanchaca mine produced in 1885 $4,819,146 in silver ores, netting the company for the year $2,080,039. Copper occupies the next rank among the mineral riches of Bolivia. The province of Ingavi, in La Paz, possesses mines from which 15,000 to 20,000 cwts. of copper are annually taken. The departments of Potosí, Chuquisaca, Oruro, and Atacama are also rich in copper. Lead is frequently seen near silver, as also quicksilver. Coal and iron are found in Chuquisaca, Oruro, and Beni. In 1858 there were four tin shafts in the province of Potosí. Precious stones, mostly hyacinths and opals, are found in the department of Santa Cruz, and diamonds in Beni. Nitrate of soda abounds in the desert of Atacama. During 1885, Bolivian mineral products to the value of upwards of ten million dollars, passed through the Argentine Republic in transitu for Europe, as follows: bismuth, $808,743; tin, $59,433; silver and silver ore, $4,158,742; gold dust, $427; virgin silver, $5,267,278; coined silver, $3,737. Total, $10,298,360.

The Argentine Republic has alum, coal, petroleum, copper, tin, lead, gold, silver, salt, and sulphur.

The following data on the mineral wealth of the republic are from official sources: Coal exists in the provinces of Mendoza, Rioja, and San Juan. At the two first named it is abundant and of first quality. Petroleum is found near the city of Mendoza; at the depth of 120 metres the deposit was reached, and a steady stream of puré oil came to the surface. But the great distance from the Plata river renders its ability to compete with the article from the U. S. very doubtful. The whole mineral production of the Argentine Confederation in 1882 did not exceed in value $570,000, of which silver counted for about $230,000; copper in bars for $125,000, in ore $21,800; and tin, some $85,000. The following figures of shipments during 1885 show the limited mining operations:

Copper in bars,	170,114	kilograms,	worth	.....$37,996
Copper ore,	86,962	"	"	 16,015
Lead in bars,	19,130	"	"	 2,330
Lead ore,	35,497	"	"	 6,334
Total.....				.....$82,675

Neither gold nor silver figure among the mineral products; although it was reported that gold and silver mines in the interior were yielding metal. In 1885, metals to the following value were imported for coinage: gold, $948,272; silver, $1,298,869; copper, $267.

In 1886, placer gold having been discovered near Cabo Virgenes, and the straits of Magellan, the government placed an armed vessel on the line touching at Patagones, Chubut, Deseado, Santa Cruz, and Gallegos. The gold is found in the sands of a tract of land between the straits of Magellan and the Gallegos river under the 51st parallel of south latitude. It exists both in the sands of the beach and rivers, though not equally rich. At Punta Arenas, on the Chilian side, many men were then engaged in washing the auriferous sands.

Uruguay possesses deposits of gold, silver, lead, iron, copper,

marble, agates, alabaster, and amethysts; but though some mines have been opened, it may be said that mining is hardly developed. Paraguay offers still less information as to her share of this branch of wealth. There was once a rumor that the Jesuits knew of gold-mines in the country, and concealed them; but there is no evidence to substantiate it. Iron was worked by the government of the second Lopez at Ibicury. Native copper, black oxide of manganese, marble, lime, and salt have been found in more or less quantity.

Peru is world-renowned for her mineral wealth, particularly in the precious metals. Gold and silver exist in great abundance. The silver mines are numerous and exceedingly rich. There is also quicksilver in the country. Copper, iron, lead, tin, nickel, cobalt, magnesia, aluminum, lime, and sulphur are widely diffused. There are extensive quarries of marble and alabaster. Coal occurs on the coast. There are likewise a number of petroleum springs. Saltpetre is largely produced along the Pacific shores. The richest beds, however, are now in possession of Chili. The Lobos, Macabi, and Guañape islands, are enormous guano deposits. Salt is collected from the salt ponds near Callao.

Gold is found in all the passes. Nearly all the mountain streams carry gold in small quantities. In some places this metal appears in quartz. The Carabaya gold mines are quite famous. Silver ores yield from 5 to 50 per cent. In the last decade of the 18th century there were in operation 70 gold, 34 silver, 40 quicksilver, and 12 lead mines, out of which the Spanish government obtained for many years a revenue of nearly seven million dollars a year. It is of record that Perú, at the breaking out of the revolution for independence, possessed over 1000 mines of gold and silver. Mining was discontinued in 1820, and though English efforts partially revived the industry, it went into decadence, because of the disturbed condition of the country. But after 1845—guano having become a great source of wealth—the people awoke to a sense of the importance of developing their country's resources; improved machinery and methods were employed in the works, and the silver mines began to yield a larger quantity of metal than they had produced in many years. Many new mines have been opened since. The most important silver mines are in Huayllura, Palmaderas, Montes Claros, Carabaya, Jauli, Castrovireina, Salpo, Ancastis, Chilete, and the famous Cerro de Pasco. This last named district produced from 1630 to 1849, $475,000,000. It has been estimated that by means of a tunnel, like Sutro's at Nevada, 100,000 square yards could be opened in the hill, and $500,000,000 more would be obtained. The value of silver mined from 1630 to 1803 has been set down at $1,232,000,000, of which $849,445,500 came from the three lodes of Pasco, Hualgayoc, and Huantaya. It has been said that as late as 1661 silver was so plentiful in Perú that the streets through which one of the viceroys entered Lima was paved with silver bars to the value of $75,000,000. In 1878 the number of registered mines of all kinds was about 15,000, but only about 600 were actually worked. The gold and silver mines at present exploited produce about $6,000,000 yearly, but a very small proportion of which is gold. A large part of this yield is used at home. The exportation of gold and silver is subject to a duty of 3 per cent. Coinage is free and unlimited. The mint receives the bullion and returns its full value in the form of coin. In 1877 there were exported, however, $2,794,000 of silver, besides $1,603,800 of copper; of gold there was no return. That same year there were in operation 10 mines of gold, 34 of gold quartz, a few of quicksilver, 482 of silver, 25 of copper, 217 of coal, and 49 petroleum springs. The chief quicksilver mines are those of Huancavelita and Chota. Lead, iron, aluminum, sulphur, lime, and magnesia occur in various places. Cobalt and nickel are found in Husuta; marble and alabaster deposits are extensive in Puno and Ayacucho; the petroleum springs are in Piura; coal exists in several places, and working the beds promotes activity in other industrial pursuits. A great source of Peruvian wealth, since 1836, has been the guano islands. Mining guano on a large scale began in 1840. The deposits yielded to the Peruvian government from $20,000,000 to $25,000,000 a year. As late as 1873 they were reported to still contain guano to the value of 275 to 300 million dollars. The

fact, however, is that the famous Chinchas are exhausted, and the guano of the Lobos, Macabi, Guañape, Punta Alta, Puerto Inglés, Pabellon de Pica, etc., along the southern coast, is inferior in quality. The total amount has been estimated at 1,800,000 tons. Commencing in 1869 with 574,790 tons, the sales have run down to 378,663 tons in 1876, 310,042 in 1877, 338,000 in 1878, as appears in private reports.

Chili possesses a variety of minerals, many of which are found in large quantities. The existing minerals are gold, silver, quicksilver, copper, iron, zinc, nickel, antimony, arsenic, alum, bismuth, manganese, sulphur, iodine and borate of soda, nitre, coal, cobalt, etc. Copper, silver, nitre, and coal are the only ones which to some extent pay to work. The mines are not, generally speaking, worked by the most improved methods.

While in California and Australia the mining industry has been declining greater attention being devoted in these countries to agriculture, the reverse has occurred in Chili. In 1877 the mining exports exceeded those of 1876 by $3,407,000, whereas in the agricultural exports there was a decrease of $1,356,000. In 1875 there were upwards of 30,000 men engaged in mining; the products of which industry in 1878 were valued at nearly 18 millions of dollars. An American company in 1877 put up extensive works at Catapilco, some forty miles north of Valparaiso, with the expectation of getting gold from placer deposits to the amount of one million dollars a year during fifty years. The annual mineral yield of Chili is about 160,000 kilograms of silver, 500 kilograms of gold, 40,000 tons of copper, 800,000 tons of coal, 550,000 tons of nitrate. The coal mines of southern Chili have been for several years past acquiring a great importance. They extend along the coast from the province of Concepcion to the straits of Magellan, including some of the Chiloé islands. The oldest as well as richest coal beds are south of the river Biobio at Coronel, Lota, and Lebú: they are worked by the same system employed in English coal mines. Steamers coal at the mouth of the pit, and a great deal of the copper ore that used to be shipped to England for smelting has been for several years past sent to Coronel and Lota for that purpose. The coal production has been growing very rapidly, and may soon average from two to three million tons. There are large works for amalgamating silver and smelting ores in Copiapó, Chañarcillo, Carrizal, and Guayacán. Of the metal exports of the republic, copper counts for 70 per cent., and silver for 25. Copper mining has lately sufferced a setback. Owing to the low price of the metal in Europe, miners were already in 1885 and 1886 turning their attention to gold and silver mining, and a considerable revival in these lines immediately took place. The copper deposits are almost inexhaustible, it is true, but for various reasons—defective mining laws, cost of mining, smelting, transportation to the sea-coast, and freight charges to consuming markets—the republic cannot compete with other copper-producing countries. The chief difficulty is that the mining belt lies in the northern section, as distinguished from the central and southern of the republic, an arid region to which food must be taken from the other two sections; the mines, as a rule, are at considerable altitudes, and the mining methods are exceedingly primitive; then again there are no roads fit for transporting minerals on; and where railways exist, their freight rates are too high to be of any benefit to mines of low yield. The country needs light, cheap railways, and the employment of labor-saving machinery to develop its resources. There are thousands of tons of valuable ore lying on the surface in the old mining fields between Coquimbo and Huasco, awaiting capital and improved methods to yield up its gold, silver, and copper. Manganese is very plentiful, and the cost of extracting it is small; but the transportation to the coast is expensive. The cost of placing it in the port of Coquimbo is $10 to $12, Chilian currency, per ton, whereas the price in England is quoted at £3 10s. for ore yielding not less than 45 per cent. Of nitrate, many deposits have been discovered in the Atacama district, within Chilian territory. The staple is not of high quality; but water having been found not far off, the discovery may possibly be made profitable.

A variety of minerals is found in the island of Santo Domingo, or Hayti, including gold, silver platinum, mercury, copper, iron,

tin, sulphur, manganese, antimony, rock salt, bitumen, jasper, marble, and a number of precious stones.

It is well-known that the Spaniards, soon after the occupation of the island, found gold in the mountains of Cibao; but mining for gold was abandoned long ago. Nevertheless, some gold washing is still carried on in the northern streams by the poorer class of natives. In fact, mining, for want of capital and machinery, is no longer an industry in either of the republics.

The island of Cuba has minerals in considerable variety; gold, silver, iron, copper, lead, asphaltum, antimony, copperas, bitumen, petroleum, naphtha, coal, marble, jasper, etc.

The following grants were in 1885 in successful operation: asphaltum, six, producing about 3,400 tons; petroleum, one, yielding 283 hectolitres; naphtha, one well, yielding 34 hectolitres; iron, three beds, yielding 23,877 tons; copper, three mines, yielding 67 tons of cement copper. The machinery and supplies for mining (exempt from duty) amounted to $170,639. The Juragua Iron Company sent their ore to Philadelphia at the rate of 15,000 tons per month. Six hundred men were employed. American improvements were noticeable in the machinery, in a railway of 27 kilometres, and in a long iron pier at the terminus of the road. Marble and jasper are found in several places. In the Isle of Pines, a dependency near the southern coast, there are colored marbles, and a quarry of white marble but little inferior to that used for statuary. Two foreign companies have worked copper mines; one in the Sierra del Cobre pursued operations until they were stopped by the revolution of 1868. Salt is collected along the coast in large quantities. Mining will hardly ever become profitable in Cuba.

There was a time when gold was found in considerable quantity in Porto Rico. The metal still exists, together with copper, coal, and salt. Only the salt deposits are worked at present.

The mineral products of the United States are varied and exceedingly valuable. They include gold, silver, quicksilver, iron, copper, lead, zinc, nickel, platinum, aluminum, antimony, anthracite and bituminous coal, petroleum, lime, granite and other building stones, cement, salt, mineral water, natural gas, and a multitude of other things of less importance.

Estimate of gold and silver produced in the United States from 1845 to 1886 inclusive:

Gold	$1,718,348,301
Silver	760,888,670
Total	$2,479,236,971

The precious metals were obtained in 1886 mostly in California for gold; and in Colorado, Arizona, Utah, Nevada, and Montana for silver. The Atlantic and Mississippi States produce little silver. The quantity found with the native copper of Lake Superior is not considerable; but over $2,000,000 have been obtained from the ores of the Silver Islet mine on the island of that name, on the north side of Lake Superior. The galena of the Mississippi valley is usually poor in silver; and that of the Atlantic slope but slightly argentiferous, with occasional exceptions.

The gold and silver of domestic production deposited at the mints and assay offices from their organization in 1793 to the close of the fiscal year ended June 30, 1887, were as follows:

Gold	$1,334,609,151
Silver	423,655,311
Total	$1,758,264,462

The value of a ton of pure gold is $602,799.21. One million dollars in gold weigh 3,685.8 pounds avoirdupois. The value of a ton of pure silver is $37,704.84. One million dollars in silver weigh 58,929.9 pounds avoirdupois.

The following are the statistics of the metallic products of the United States in 1886 (long tons equal 2,240 lbs., short tons equal 2,000 lbs.)

Metallic products.	Quantity.	Value.
Pig iron, long tons, spot value	5,683,329	$95,195,760
Silver, troy ounces, coining value	39,445,312	51,000,000
Gold, troy ounces, coining value	1,881,250	35,000,000
Copper, pounds, value at New York City (a)	161,235,381	16,527,051
Lead, short tons, do. do.	135,629	12,667,749
Zinc, do. do. do.	42,641	3,752,408
Quicksilver, flasks, value at San Francisco	29,981	1,050,000
Nickel, pounds, value at Philadelphia (b)	214,992	127,157
Aluminum, troy ounces, value at Philadelphia	—	27,000
Platinum, troy ounces, value crude, at New York City	50	100
Antimony	35	7,000
Total	—	$215,864,825

(a) Including copper made from imported pyrites.
(b) Including nickel in copper nickel alloy.

The following are the statistics of non-metallic minerals for 1886:

Non-metallic products.	Quantity.	Value.
Bituminous coal, brown coal, lignite, and anthracite mined elsewhere than in Pennsylvania, long tons	65,810,676	$78,481,056
Pennsylvania anthracite, long tons	34,853,077	76,119,120
Petroleum, barrels	28,110,115	20,028,457
Building stone	—	19,000,000
Lime, barrels	42,500,000	21,250,000
Salt, do.	7,707,061	4,736,585
Cement, barrels	4,500,000	3,600,000
South Carolina phosphate rock, long tons	480,542	1,872,936
Limestone for iron flux, long tons	4,717,163	2,830,297
Mineral waters, gallons sold	8,950,317	1,284,070
Natural gas	—	9,847,150
All others	—	4,523,352
Total	—	$243,963,063

Adding to the above fireclay, kaolin, and a variety of other material, the total value of the minerals and metals produced in the United States in 1886 is estimated at $465,327,888.

Jamaica contains a great variety of marbles, porphyrites, granite, and ochres. Some traces of gold appear with the oxidized copper ores (blue and green carbonates) in the Clarendon mines. Copper ores exist in many places but do not pay to work. Cobalt and lead have been worked, thus far unprofitably. Manganese and iron ores occur, and also a kind of arsenic. It is claimed that the island has silver, platinum, and tin. Trinidad island has a great deal of asphalt, which is becoming an important staple. Her dependencies, Redonda and Sombrero, yield, the former, guano, and the latter, phosphate of lime. Grenada contains sulphur and fuller's earth. Porphyry, limestone, and basaltic rocks occur at certain places. In British Guiana quartz-porphyry and felspar occupy extensive areas over the surface of the granite. A large proportion of the surface rock in the interior is granite. The white sand at the sand hills on the Demerara and elsewhere is very pure and well adapted for glass-making. Gold has been found about forty

miles up the Cuyuni river. Attempts to work it met with small success, and were, besides, impeded by boundary disputes. Placer gold was discovered in French Guiana in 1819, and a rich auriferous district was likewise found in Dutch Guiana about Marrowijoy. In this last named colony lead, silver, and iron exist. The little French island of St. Barthélemy has zinc and lead, but the deposits lie idle.

A company was organized in French Guiana in 1856, which collected nearly 5,800 ounces of placer gold between 1857 and 1860. Another company obtained about 23,350 ounces in 1872. From Cayenne was exported in 1874 gold valued at £800,000. In 1875–6 the monthly yield averaged upwards of 4,800 ounces. Early in 1876, 519,000 acres of land in the auriferous region of Dutch Guiana had been leased to private persons, whose labors at mining met with fair success.

Value of the gold exported from Surinam during the years 1876–86:

	Florins	
1876	49,900	
1877	202,380	
1878	497,059	
1879	679,914	
1880	918,672	
1881	849,435	
1882	784,726	
1883	908,943	
1884	1,305,698,	value of 967,271 grams
1885	1,331,774,	value of 983,069 grams
1886	1,082,767,	value of 731,514 grams
Total	8,557,268	

Most of the gold was obtained in Surinam; and other portions in Saramaca, and in Marowyne.

The first three months of 1887 there were found in Surinam 125,067 grams; in Saramaca, 13,776 grams, and in Marowyne 7,248 grams. There are no data at hand to show the production for any period later than the first quarter of 1887.

Anguilla and the Virgin islands, as also Curaçoa, claim to possess some minerals: the first named salt and phosphate of lime; the Virgin islands copper, gold and other metals; and Curaçoa salt and lime.

II. MANUFACTURES.

The Nahuas and Mayas of Mexico and Central America had attained a high degree of perfection in certain branches of manufactures. They excelled in the ornamental working of the precious metals and stones, and also of shells and carved woods. Their pottery was excellent. They made cups and bowls from the hollow shells of gourds, and also fine baskets. They manufactured very fine cloth of cotton, rabbit-hair, of the two mixed, or of cotton mixed with feathers. The rabbit-hair fabrics were equal in finish and texture to silk. The palm and maguey fibres were prepared in the same manner as flax in other countries. From the same material were made cords, ropes, and mats. All the work of spinning and weaving was done by women. The spindle used in spinning was like a top which was set whirling in a shallow vessel, the fibre being applied to its pointed or upper extremity until the impetus gave out. Paper was mostly made of maguey fibre, although some of the other fibres used in the manufacture of cloths were occasionally mixed with those of the maguey. The skins of animals were tanned both with and without the hair; the old authorities praise the results of the process employed without explaining what it was. In preparing dyes and paints, mineral, animal, and vegetable colors were used, the latter being extracted from woods, barks, leaves, flowers, and fruits. The Aztecs probably knew more of the art of dyeing than the Europeans, and many of their dyes were, after the conquest, introduced throughout the world; among them were those of cochineal, indigo, and ochre.

The skill displayed by the natives in the branches of manufactures above referred to, created no little astonishment, even among their conquerors; nor was less surprise caused among the conquered by the first examples of European skill in manufactures. The natives were not slow to discern the advantages they could derive in this line from their Spanish masters, and seized every opportunity to learn. They not only succeeded in imitating the Spanish artisans, but exhibited some ingenuity as inventors. I have spoken of the knowledge the Nahuas possessed in working the precious metals. They could, indeed, work them in certain forms which were absolutely unknown in Europe; this art was lost, owing to the selfishness of the Spaniards, who issued regulations forbidding, under severe penalties, that native jewellers should be employed in making ornaments either of gold or silver. After the conquest the production of cotton goods decreased in consequence of the competition with European commodities, though the latter never could supplant the fabrics of the natives. There were a few large factories in later years, but looms were to be found all over Cholula, Puebla, Tlaxcala, Querétaro, and Guadalajara. In 1792

the viceroy founded a weaving school at Tixtla. Whenever Spain was at war with a European power, and the importation of fabrics became interrupted, the native industry had its opportunity to flourish for awhile, but only to relapse into its former dormant state as soon as peace was restored. The day arrived at last when Spain's foreign wars and the struggle for national sovereignty threw the people of Mexico upon their own resources, and the selfish policy of the mother country became inoperative. Under the republican government the Mexican people have been encouraged, through protective tariffs, vigorous laws, and industrial schools, to develop manufactures. The first efforts made toward this end early in the thirties, did not meet with the desired results, but they were by no means fruitless, several companies having been organized which laid the foundation of manufacturing industries in Mexico.

Patent laws have been enacted from time to time to bring about improved methods. Any product, or fabric, or means of producing, which had been previously unknown in the country, was entitled, for a number of years, to the benefits of a patent, as if it were an invention. Preference was given, however, to the inventor holding a patent from a foreign government.

Cotton manufactures, though subject to occasional checks, owing to political disturbances, and repeated changes of administrative policy, continued to assume a healthful tone, and in 1843, were considered as permanently established. But the efforts to develop the industry had a set-back in 1848 through the discontinuance of the protective, or rather prohibitive system under which it had been gaining strength, and foreign fabrics were admitted into the country by paying duties.

In 1843 there were 62 factories with 106,718 spindles and 2,609 looms in operation making 8,479 pieces of sheeting per week. The cotton produced in the country being insufficient, especial permission was granted in 1844 to import 10,000,000 pounds. At the end of 1850 the effects of the measures of 1848 were already evident; only 55 factories of cloth and twist were in operation, and they existed in Coahuila, Colima, Durango, Guanajuato, Jalisco, Mexico, the federal district, Puebla, Querétaro, and Vera Cruz, aside from about 10,000 looms scattered throughout the country. The fabrics made were plain, but under the protective system the prices had been lowered, and the poor could be clothed seventy per cent. cheaper than prior to 1831. In fact, there was a good supply for every inhabitant, and had there been a demand, the machinery on hand could have trebled the production, or made 21 yards for each one of the 7,500,000 inhabitants.

After the fall of Santa Anna's dictatorship, the new rulers showed a disposition to restore protection to this industry, but their measures did not satisfy the manufacturers, who clamored for a return to the prohibitive system, stating that manufactures had not been flourishing since 1856. The opponents of that system claimed that the industry had reached the point where profit was secured. The manufacturers denied that assertion, and we find the same denial still being made in 1879. The cotton manufacturing industry has been growing since, but the fabrics made are, on the whole, calculated for the consumption of the poorer classes, the Indians in particular. American and English goods have, therefore, a good field, notwithstanding the high import duty they are subjected to.

The number of mills scattered throughout the republic in 1879 was from 68 to 72, producing fully 3,500,000 pieces yearly. All the factories also made cotton thread, aggregating from 12,000,000 to 15,000,000 pounds annually. There were, besides, numbers of unknown mills. There were three factories in Mexico, three in Puebla, two in Durango, and one more elsewhere, making together an aggregate of 400,000 pieces annually, of prints and Mexican calicoes. The following figures are for 1879: manta, 3,500,000 pieces, valued at $10,000,000, capital invested, $38,000,000; prints, 500,000 pieces, valued at $2,500,000, capital invested, $3,000,000; white goods, 200,000 pieces, value $1,250,000, capital invested, $2,000,000; total pieces 42,000,000, total value $13,750,000, total capital $43,000,000. Thread 8,000,000 pounds, value $2,500,000, capital $8,000,000; wick, 1,000,000, value $250,000, capital $500,000; total value $2,750,000; total capital $8,500,000; rebozos 2,000,000, value $2,000,000, capital $2,500,000. Total value of Mexican manufactures in market, $18,500,000. Value of property and capital invested, $54,000,000.

The manufacture of cotton goods in 1886-7 furnished employment to upwards of 50,000 families. More than three-fifths of the population do not use foreign goods; they wear garments of manta (brown shirting) made at home. The annual consumption of the Mexican mills is about 80,000,000 pounds of raw cotton, of which about one-third is imported from the United States. The importation of American cotton has been promoted by the new railway facilities. The ruling price of Mexican cotton formerly was 13 to 15 cents, and it successfully competed in the same market with American cotton. That competition is no longer possible. The district of Laguna was the great cotton-producing region, and yielded annually 30,000 to 40,000 bales. The number of spindles in Mexico was probably 500,000 in 82 mills scattered throughout the country. The total annual production of manta was estimated at 3,800,000 pieces of 30 yards each, besides 2,750 tons of yarn used in the making of rebozos, counterpanes, towels, stockings, etc. In addition, some 300,000 pieces of prints are manufactured.

The states of Michoacán and Querétaro were, during the vice-regal period, noted for their woollen fabrics. The capital of Michoacán had at the beginning of the present century about 300 factories, producing $600,000 a year. Woollen mills were established in Michoacán in 1844, and their number had greatly increased in 1845–6, the texture was improving, and the demand growing larger. Early in the next decade the production had increased so much that the price of wool was greatly enhanced, and that of foreign woollen goods declined.

In 1860 there were eight factories for cloth, cassimeres, and carpetings, which made the previous year 34,000 pieces, valued at $2,720,000; the fabrics were of good quality, but could not compete in European markets. According to statistics of 1868, nearly 3,000,000 pounds were used by the larger mills, while the smaller ones and hand-looms called for another million. In 1879, there were about ten factories, the aggregate of whose production was 1,500,000 varas of cassimere, valued at $2,000,000, capital invested $3,500,000; barragán, 2,000,000 varas, value $800,000, capital $1,000,000; carpeting 500,000, value $200,000, capital $800,000; serapes, 2,000,000 varas, value $1,900,000, capital $1,300,000; thread $200,000 worth, capital $300,000; total value in market $4,500,000. It was stated in the national congress in May, 1879, that the woollen industry was declining, and would soon cease to exist. The rebozos (shawls) of Leon and Salvatierra have a high reputation. In northern Mexico there were in 1880 the following cotton and woollen mills:

State	No.	Value.	Monthly prod'n of cloth.
Coahuila	7	$268,000	11,300 pieces
Nuevo Leon	3	146,000	4,500 "
Sonora	1	42,000	1,000 "
Total	11	$456,000	16,800 pieces

There are also tanneries, manufactories of mescal, carriages and carts, etc.; the whole value of which hardly approaches $1,000,000.

There is good reason to believe that in a few years Mexico will manufacture more silk than will be needed by the population. There are several well-equipped factories, but the raw material produced does not meet the demand. Large quantities of Chinese silk in skeins are consumed.

Women are preferred for the work of silk factories; they are paid 27½ cents per day, while men are paid one dollar. The idea prevails that silk can be manufactured in Mexico for one-half what it costs in Paris. The government of the state of Puebla on the 30th of March, 1868, offered a subsidy and certain other privileges, including exemption from taxation, for the encouragement of the silk business. The first factory for spun and woven silk goods established in the state, and declared by the executive to offer fair prospects of permanence, was to receive a subvention of $5,000. In late years the factories of Mexico, Guanajuato, Querétaro, Jalisco, etc., have been making the best quality of goods, such as are used for ladies' dresses, scarfs, and kerchiefs, which are preferred to foreign goods because of their superior material.

There are paper factories, and a good article is made from the maguey fibre. This business has been fostered by the government. Glass and crockery hold a prominent place among the manufacturing industries, and have had their share of government protection. The manufacture of carriages, wagons, and carts, furniture, hats and caps, matches, and soap has also attained considerable proportions. Iron works make an article of inferior quality, for which reason a good deal of iron is imported from abroad. Pianos and other musical instruments, gold and silver lace, and fine jewelry, chocolate, gunpowder, and cannons are likewise made. There are no means of ascertaining with any degree of accuracy the quantity of tobacco produced, or of that actually manufactured. The business of planting and manufacturing tobacco was nearly always a monopoly. But after the downfall of the dictator, Santa Anna, a decree issued in January, 1856, by the new ruler, suppressed the *estanco*, or monopoly, which has not been since revived. The importation of foreign manufactured tobacco subject to duty was allowed. No tobacco in the raw state is permitted to enter the country. Under the new system the cultivation of the weed, and the manufacture of cigars and cigarettes has largely increased.

The tobacco grown in some parts of the republic, especially in Tlapacoyam, and other places in Vera Cruz, and also in Tabasco, is of excellent quality, and in the opinion of many competent judges, compares favorably with that of Cuba. Cigars made from it burn freely. The manufacture of cigars and cigarettes of a fine quality and make dates from the Cuban insurrection in 1868, when a number of refugees from that island settled in Vera Cruz and established factories to make cigars and cigarettes of the native tobacco. From that time similar factories have sprung up wherever tobacco grows in the republic. Cigars are made of all qualities, ranging in price from $20 to $200 per thousand. They are of every size and shade, and devices are used to attract the smoker's eye.

Manufactures are in their infancy in Central America. Since 1871 the governments of several republics have endeavored to promote their development; but the results, thus far, have not answered expectations. However, they are by no means unknown in the country.

In Guatemala good factories have been established for spinning and weaving textiles at Quezaltenango. In Chiquimula palm-leaf hats, mats, and baskets from the maguey fibre are made. In Vera Paz the Indians make hammocks, bags, rope, etc. But the fact stands officially acknowledged that domestic

products cannot compete even in the Guatemalan market with the better and cheaper ones brought from abroad. In Honduras manufactures are at a very low ebb. Salvador possesses factories for making cotton and silk rebozos, which find a ready market throughout Central America. Hammocks, earthenware, straw hats, cigarettes, sweetmeats, etc., are manufactured. Rum is made, as in Guatemala, from sugar-cane. In Nicaragua there is a total lack of skilled mechanics. The manufacturing industry is as yet restricted to a few articles of home consumption which are made by Indians, such as pottery, mats, baskets, palm-leaf and maguey hats, cordage and hammocks. The hammocks of Masaya and Sultiaba are good. Some coarse cotton goods are made, in good repute for their strength and permanent colors. In late years some improved machinery has been imported for refining sugar, ginning cotton, distilling liquors, cleaning coffee, sawing lumber, and extracting fibres. In Costa Rica domestic manufactures mainly consist of furniture, arms, hammocks, nets, cotton goods, and pottery, all on a primitive scale and in small quantity. The government offered subsidies in 1885 for silk culture, and for the manufacture of paper, rebozos, cotton goods, and sacks. In the succeeding year the following establishments were in operation: Two iron founderies, 58 forges, 7 armories, 72 saw-mills, 2 cotton mills, 252 coffee-mills, 9 sugar, 2 ice, 5 soap, one vermicelli, one oil, one Remington caps factory, 2 breweries, one distillery, 438 iron, and 612 wooden mills, 2 sculpture workshops, 117 ovens, for making tile and brick, 31 lime kilns, besides a number of artisans' shops. Total number of industrial establishments of all grades, 2,105.

Manufactures in Colombia have not as yet reached a scale of development worth mentioning; aside from a few articles woven by hand, and a little in the lines of tanning, dyeing, and basket and straw-hat making, there is nothing to particularize. In Venezuela are made cotton goods, hammocks, hats, cordage, woollen carpets, carriages, carts, cigars and cigarettes, perfumery, sweatmeats, and many other things, mostly for home consumption. There is some ship-building at Puerto Cabello.

Cotton fabrics are made in Venezuela both by hand and steam machinery. Woollen carpets are manufactured in Mérida, tastefully variegated with brilliant colored flowers from a native dye. Thousands of persons are occupied in twisting cigars and cigarettes and in making fine preserves. Several kinds of oils are also made, as well as perfumes and essences obtained from fragrant flowers.

Manufacturing industries are not much developed in Ecuador, either on the coast or in the interior; but it cannot be said that they have not made some advance. In fact, the people of that country, especially the women, excel in many branches.

In the highlands the natives manufacture furniture, saddles, earthenware, and cotton and woollen goods. In Otábalo and other places they have factories for linen fabrics, damasked coverlets, carpets, and drapery for beds which are much valued for the delicacy of their texture and colors. About 80,000 ponchos are made annually at Cotacache, Hatuntaqui and Guano. There are a few silk-weaving establishments. Gold lace is made in Quito; the women of Quito excel in all kinds of needle-work, and are noted for their fine embroidery and laces as well as for their confectionery. The manufacture of jipijapa hats is an important industry. Much cheese is made for exportation. There are many sugar mills in operation, as well as tanneries and iron founderies. Cuenca has numerous sugar refineries, and produces fine hams and sweetmeats, cottons, Peruvian bark, and tapestries. Cacao of the best quality is prepared in Esmeraldas and Guayas. Rum is distilled from molasses, and chicha from yucca and other plants. Ropes, mats, sackcloth, hammocks, etc., are made from the fibre of the American agave. There is always some ship-building at Guayaquil. Some of the factories, especially those for manufacturing cotton goods, have American machinery. Most of the raw material used in silk-weaving is imported from France; but successful efforts have been made to acclimatize the silk-worm.

Manufactures in Brazil have not as yet made much progress,

but there is evidently a tendency toward their development under a protective tariff. There are cotton, woollen, and silk factories and other manufacturing establishments.

The number of cotton mills is constantly on the increase. In 1866 there were 60 cotton spinneries and weaving factories, with 4,836 power-looms and 225,122 spindles. Their aggregate capital was 15,000,000 milreis, and they turned out in 1885, 38,121,568 yards of cotton fabrics at an average cost of 250 reis a yard. The factories are situated in the following provinces: 15 in Rio de Janeiro, 14 in Minas Geraes, 13 in São Paulo, 12 in Bahia, 6 in others. Nearly all of them use water-power. There are some, however, run by steam with imported coal, which pay well. The cotton mill at Macaco in the province of Rio Janeiro, one hour by railroad from the city of Rio, employs from 300 to 800 looms, and has water-power, and facilities for steam-power in dry weather. It makes white cloth as well as colored, and mixed cloths for men's cheap clothing, and has met with pecuniary success. There is another establishment at Piracicaba, 500 miles from Rio, with abundant water-power and the most improved modern machinery for making embroidery. Its operatives were mostly natives. Manufacturing activity in Brazil will create an increased demand for machinery, as evidenced by the fact that a large company organized about 1884 in Minas Geraes to manufacture lard sent an agent to the United States to purchase the required machinery.

There was, in 1886, one woollen factory in Rio Grande do Sul and one in Rio de Janeiro. The woollen yarns are nearly all imported. Fine silks are made in Rio and elsewhere. Refined sugar and taffia are manufactured. Much of the latter is used for making gin and other liquors of good quality. Breweries have flourished in late years. Cigars are made on a large scale at many places, especially at Rio de Janeiro and Bahia. Snuff, highly esteemed abroad, figures also among the manufactures. There are many saw-mills. Common and wall paper, soap, chemicals, ribbons, bronzes, etc., are likewise produced. Brazilian founderies do excellent work, such as for steamers and iron bridges. The province of São Paulo has extensive iron works.

The manufacturing industries of the La Plata region seem to be limited—aside from articles classified as agricultural products, such as sugar, wine, and brandy—to ponchos, shawls, rugs, saddle-cloths, ropes, nets, sacks, etc., morocco leather, wooden vessels, and Córdoba ware.

The hair and wool of the native sheep of South America form the staples used in the manufacture of the finest ponchos and other articles. Some information on those animals will not be uninteresting. The several classes greatly resemble one another, and yet seem to be of distinct genus. They have many points in common with the sheep and the camel, and yet are as distinct as an ass is from a horse; like these animals they can also be crossed.

The *llama* and the *alpaca* are of various colors; sometimes speckled. The *guanaco* and the *vicuna* are usually brown, approaching red. The two former are now in a perfect state of domesticity, although we are assured that the llama may still be seen in a wild state in some inaccessible parts of the Andes. The guanaco and vicuña prefer the wild state, but may be domesticated. These four animals are indigenous to the cordilleras of the Andes; but none of them are found north of Ecuador. The guanaco is especially found in the extreme south-western portions of the province of Buenos Aires, and in Patagonia as far south as the Straits of Magellan. In Chili, and particularly in the Araucanian region, exists the *chilihueque*, which is probably the Peruvian alpaca modified by the climate, and formerly was used as a beast of burden. It is not to the purpose to describe in this Manual these different animals, but simply to explain their advantages, and the uses they are put to.

The llama has a fine silky hair or wool, which, when properly cared for, grows to a length of three to four inches. The finest is on the legs. On the body the wool is of various colors; under the belly it is always white. It is never greasy or dirty like the fleece of the sheep, and the portion taken from the loins rivals it in silkiness and softness. The meat is highly esteemed by the Indians. The animal is used as a beast of burden, and is extremely affectionate to its shepherd.

The alpaca is a little smaller than the llama, and like the latter, is used to carry burdens on short journeys, from 75 to 100 pounds being a load. But the alpaca is most esteemed for its wool, which is long, soft, and plentiful. On

the sides, breast, and back the fleece is from 8 to 16 inches long. It is of various colors, and at times spotted. The wool is somewhat protected by a long, fine hair; the fleece is therefore wool and hair combined. The Indians shear it in June and December every year.

The guanaco in its general appearance resembles the llama, but its fleece is more shaggy.

The vicuña is the smallest and most delicate of the indigenous sheep. Its wool is also the finest, and hence it is the most highly prized. When cleared of the hair which grows with it, it is indeed very valuable. That on the back is unmixed with hair; on the rest of the body the hair is longer than the wool. On the belly the wool is white. It is estimated that about 250,000 vicuñas are hunted down yearly.

It is not known how much of the wool of these native sheep goes out of the country, as the authorities do not classify it; but there is reason to believe that the quantity is not great. Most of the several staples is consumed at home, being used in the interior for the manufacture of yarns, threads, and a great variety of articles. The natives are remarkably skillful in making shawls, ponchos, rugs, etc. They weave cloth with a striking arrangement of colors, and far superior in texture to the best woollens of commerce. The best of these fabrics are made in Catamarca (Argentine Republic) and in some other of the upper provinces, but not in sufficient quantity to meet the demand. The great merit of these ponchos, shawls, etc., is that they are impervious to water, and at the same time light and fine. They command very high prices, ranging from $100 to $500 according to finish. To make them requires months of constant labor. As the vicuña is becoming scarce, the price must soon be still higher.

The absence of laws for the protection of these sheep will bring about their gradual extermination. In Patagonia both Indians and settlers are making havoc among them. In the north-western portion of the Argentina their wholesale slaughter is not common, as the animals are essential to the requirements and comfort of each family. In Peru and Bolivia, it is understood, there are laws for their protection.

Manufactures in Uruguay are confined to a few coarse articles for home consumption.

In Bolivia are made fine and coarse cloth, cordage, leather, skins, glass, etc., jipijapa hats and other hats.

The coarse cloth made is known under the name of *tocuyo*. The number of looms in Cochabamba runs into the hundreds. Santa Cruz produces good cordage from vegetable fibres, leather, skins, glass, etc. Fine cloths are manufactured from the hair of the llama, alpaca, etc., in La Paz; vicuña-wool hats in Atacama; silver-wire vessels in the mining districts. The Indian women make several kinds of common goods. The Indians also know how to make gunpowder.

It cannot be said that Perú has advanced much in manufacturing. However, many excellent articles are made, mostly for home consumption, excepting, perhaps, a few jipijapa hats which are carried abroad.

The Indians make cotton and woollen goods of inferior quality, though strong and lasting, straw hats, mats, coarse pottery, and other articles of domestic use. Lima manufactures gold-lace and fringes, and trinkets. Tarona makes ponchos. Arequipa is famous for its gold and silver tissues. Cuzco excels in embroidery, furniture, carving, as well as in painting and sculpture. There are in the vicinity of Lima brick and lime kilns, several factories of glass and one for making paper from the yucca fibre. Tanning and dyeing, and making soap and glue are among the industries. They also have in Lima steam saw-mills and flour-mills, cotton factories and breweries. Gas is made in the city. Nearly all the pans or vessels used on the sugar estates are made in the city.

Chili is quite a manufacturing country, though most of its products, except those classified under the terms agricultural or mining, are consumed at home.

There are factories for making hempen goods, cordage, soap, leather, char-

seal, brandy, and common articles of gold, silver, copper, and iron, clay vessels, and ponchos. These ponchos are superior to any article of the kind made in England or France.

There are many large milling establishments in Chili. As a general rule, flour of a very superior quality is produced. Most of the mills have been erected by American millwrights, and the best millers in the country—proprietors and workmen—are Americans.

The brewing business has taken in late years rapid strides. There are many breweries which have a capital invested running into the hundreds of thousands of dollars. Most of them are conducted by Germans, and a large number turn out light ales of excellent quality.

There are two woollen cloth factories in the country; the largest situated at Tomé, turns out 300 to 500 meters of cloth daily, at prices varying from $1.75 to $4 the meter. Its capital is $450,000, of which $220,000 represent the cost of the factory. The wages of the male operatives range from 50 cents to $1.25 a day, and those of the females from 30 cents to $1; boys are paid from 25 to 30 cents. The dyes and drugs are imported from Europe, and one-sixth of the wool comes from the Argentine Republic. Chili produces five-sixths of the wool, the sulphuric acid, tartar, sulphate of copper, and soda-ash. The quality of the cloth produced is very fair; but the finest is inferior to the European article. However, a gardual improvement in this latter respect is taking place.

The number of founderies and machine shops in 1868 was 20; this number did not include the government railway workshops at Valparaiso, Santiago, and Concepcion, nor the workshops of private lines. Nearly all the private establishments are owned and managed by Englishmen; the work done, especially at Valparaiso, is of a first-class character. The raw materials, excepting the coal, as well as the plant, are imported.

There were numerous coach-building, and wheelwright establishments, but excepting those which are in the hands of foreigners, English, Americans, and Germans, the work turned out is of the rudest and clumsiest. Americans should not send out vehicles made in the United States, but study the business on the spot. This would probably be a good field for them to enter.

There were two large rope-walks at which good cordage and twines were manufactured by machinery.

There were also two paper-mills, which confined themselves to making coarse wrapping paper.

There was a large sugar refinery at Valparaiso, the raw material used coming from Perú: the product, though fair, does not equal that of the United States.

Bottles and glassware are made at Lota. The bottles made are of fair quality: but the glassware is very inferior.

The manufacturing industries of the three islands of St. Domingo, Cuba, and Porto Rico are of little importance, except as regards the preparation of agricultural products for market, and the manufacture of cigars and cigarettes in Cuba, chiefly in Habana, which is a very large business.

The most celebrated factories of cigars made of Vuelta Abajo tobacco are established in Habana. Not less than 100 first-class, and innumerable minor establishments are devoted to that industry. The number of brands usually is 1,000; the average daily production of cigars is set down at 2,600,000. There are in the city of Habana some iron founderies, machine-shops, carriage and soap factories, etc.

The development of manufactures in the United States was the result of their war against Great Britain in 1812–15, which practically put a stop to American trade. Heavy duties were laid on foreign manufactured goods, which really meant English goods. American mechanical ingenuity was developed, and machinery was invented to utilize the raw material of the country, especially cotton. Roads were improved, to supplement the advantages of fine navigable lakes and rivers; steamboats were finally brought into requisition on the inland waters. Canals and railways have in still later years added facilities of communication, which

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help to develop on an enormous scale the country's varied industries.

Notwithstanding the heavy import duties levied on British fabrics, the latter still competed with the American, selling, it is true, at prices which barely covered the cost of production. The import duties were then made higher. With occasional changes, the system of protecting American manufactures became established, and under it they have increased to immense proportions. Massachusetts, Rhode Island, New York, and Pennsylvania were the states where the cotton industry had its greatest development, Lowell, in the first named, having the most extensive factories. American factory towns—Lowell being the most noted—have this undisputed advantage over the English, that they do not exhibit the misery of the latter; the workers are clean, well clothed, and well fed. Education being more prevalent in the United States, and wages being higher, the workers profit by public libraries, and have social enjoyments of a superior order.

Great Britain is the only country in Europe where the wages of labor are within one-half of what they are in the United States. In Germany, France, Belgium, and Switzerland wages are not one-third of what they are in the North American republic. The wages of women employed in Manchester cotton-mills do not average even $60 a year. The average of men's wages in German factories is less than $115 a year, and that of women less than $50 a year. In Munich, a great centre of civilization and fine arts, women having a number of children to support, saw wood in the streets for 15 cents a day. In Belgium 43 cents represent the day's wages of a man, and 22 cents those of a woman. The highest paid labor, in steel and iron, is only 80 cents a day. The pay in the cotton-mills of Naples is 20 cents a day; that of marble and granite cutters 40 to 50 cents a day according to skill: of coachmen 30 cents; of women and girls in lace factories, 10 cents and 7 cents each, respectively. Of the men in the glass-works of Italy only the skilled blowers get $1 per day. Laborers on farms receive 15 to 18 cents a day, and work from sunrise to sunset. In Switzerland skilled men and women engaged in the manufacture of silk goods are paid for their day's hard work, 40 cents the former, and 20 cents the latter. In Glasgow, the great steamship factory of the world, 41,000 families out of 100,000, live each family in a single room, and half the men and women are usually without work. That one room for a whole family, father, mother, daughters, sons, tells the story of the miserable wages the laborer gets dragging him down to abject poverty.

The extensive orders constantly received from all parts of the world by American manufacturers is proof positive of a general recognition of the superiority of their fabrics. In spite of unfavorable conditions in 1877, which gave a drooping tendency to both cotton and manufactures, some progress was made during the year by the manufacturer as well as the producer of cotton. The manufacturers had succeeded in opening new markets for their goods, which offered a hopeful prospect for the future.

The export of cotton manufactures gradually, though slowly, increased between 1872 and 1874 from $2,304,330 to $3,091,332; in 1876 they rose to $7,722,978, and in 1877 to $10,180,984. A small total, indeed, but encouraging. The business has progressed ever since. In the southern states the manufacture of cotton fabrics was more satisfactory than in the northern states. The people of the south have learned to be economical: they now raise their food supply as well as their cotton, and have cheap labor under their control. The home consumption of raw cotton in 1831 was 77,500,000 lbs., and the value of the fabrics $40,750,000; ten years later the consumption of fibre was 105,000,000, and the total value of the products nearly 25 per cent. more than that of 1831; the value of those of New York and Massachusetts exceeding, in 1841, $20,000,000 each.

The following table shows how much cotton has been used by manufacturers in the north and south of the republic in six years:

Mills	1872	1873	1874	1875	1876	1877
Taken by	Bales	Bales	Bales	Bales	Bales	Bales
Northern mills..	977,540	1,063,465	1,177,417	1,062,522	1,211,598	1,288,418
Southern mills..	120,000	137,662	128,526	145,079	145,000	147,000
Total.....	1,097,540	1,201,127	1,305,943	1,207,601	1,356,598	1,435,418

Cotton Manufactures, January 1, 1881.

Number of looms	280,223
Number of spindles	10,921,147
Number of bales of cotton used	1,586,481
Number of persons employed	181,628

The above figures do not include hosiery mills, or any mills known as woollen mills where cotton may be a component material.

Woollen manufactures in the United States rank next to those of cotton. Improved by the introduction of Saxony sheep the American staple became abundant and of better quality.

The chief centres of the woollen industry in the United States are in the New England States, and in New York and Pennsylvania. In 1870 Massachusetts held the first position in woollen goods, New York in hosiery, and Pennsylvania in capital invested in worsted goods and in the production of carpets. The industry had reached its maximum in 1872, after which there was a marked decline. In 1876 a great many mills and machinery lay idle. The extent of the industry including woollen goods, worsted goods, hosiery, and carpets other than rag, was as follows for 1860 and 1870:

	1860	1870
Number of establishments	1,673	3,456
Number of persons employed	50,522	119,859
Capital invested	$42,849,932	$132,382,319
Wages paid	$13,361,602	$40,357,235
Wool used, domestic	85,634,346 lbs.	173,389,069 lbs.
do. foreign		46,581,105 lbs.
Cotton used	21,140,403 lbs.	32,473,680 lbs.
Shoddy used	.....	19,574,261 lbs.
Value of all materials	$46,649,365	$134,154,615
Value of products	$80,734,606	$217,668,826

The value of the products of 1880 is set down at about $235,800,000.

The manufacture of silk in the United States has had a remarkable development. In various parts of the country the soil and climate are well adapted for silk culture. In fact there seem to be no natural obstacles to it throughout the middle and southern portions of the republic. With a sufficient supply of the raw material, and with the aid of the most skilled European operatives, and of new and improved machinery, there is good reason to expect that American factories will supplant the other great silk industries of the world.

The total product of silk raised in the United States in 1840 was set down at 61,552 lbs., worth about $250,000; in 1844, 396,790 lbs., valued at $1,400,000; but in 1850 it was only under 15,000 lbs. The census of 1870 gives no information on silk culture, nor is there any to be found for 1875. The culture and manufacture of silk has been attempted in California with prospects of successful re-

Comparative Table of Leading Manufactures, 1870—1880.

	1880					1870				
	Establishments.	Capital.	Hands Employed.	Wages paid	Val'e Products	Establishments.	Capital.	Hands Employed.	Wages Paid	Value of Products.
		Mil'n		*Mil's*	*Mil's*		*Mil's*		*Mil's*	*Mil'ns*
Agricultural Imp...	1,943	62.1	39,580	15.3	68.6	2,076	34.8	25,249	12.1	52.0
Blacksmithing	28,101	19.6	34,526	11.1	43.7	26,364	15.9	52,982	9.2	41.8
Bookbinding	588	5.7	10,612	3.9	11.9	500	5.3	7,697	3.0	14.0
Boots and Shoes	17,972	54.7	133,819	50.9	196.4	23,428	48.9	135,889	51.9	181.6
Brass.....	442	15.3	12,461	5.6	26.6	319	6.7	4,703	2.4	10.4
Bread and Bakeries	6,396	19.1	22,488	9.4	65.8	3,550	10.0	14,126	5.3	36.9
Brick.....	5,631	27.6	66,355	13.4	32.8	3,114	20.5	43,293	10.7	29.0
Carpentering and Building	9,184	19.5	54,138	24.5	94.1	17,142	25.1	67,864	29.1	132.9
Carpets.....	195	21.4	20,371	6.8	31.7	215	12.5	12,098	4.0	21.7
Carri'ges & Wagons	3,841	37.9	45,3.4	18.9	64.9	11,900	37.3	55,841	21.6	66.7
Cars, RR.and Street	130	9.2	14,232	5.5	27.4	170	16.0	15,931	9.0	31.0
Clothing.....	6,728	88.0	186,005	52.6	241.5	9,705	53.7	119,824	33.2	161.5
Cooperage	3,898	12.1	25,973	8.9	33.7	4,961	9.7	23,314	7.8	26.8
Cotton.....	1,005	219.5	185,472	45.6	210.9	969	140.1	135,763	39.1	177.9
Drugs & Chemicals	1,155	39.2	13,570	5.8	52.8	611	19.4	7,165	3.1	35.6
Dyeing & Bleaching	494	27.0	18,165	6.9	33.9	261	5.0	4,272	1.8	58.6
Flouring and Grist-mill Products.....	24,338	177.3	58,407	17.4	505.1	22,573	151.5	58,448	14.5	444.9
Furniture	5,584	46.6	61,698	24.5	83.1	5,981	43.9	53,298	21.5	69.0
Gas.....	.....	.....	.....	.....	.....	390	71.7	8,723	6.5	32.0
Glass.....	381	20.7	25,763	9.8	23.6	201	14.1	15,822	7.8	19.1
Hardw're & Cutlery	1,130	31.2	33,286	13.7	42.1	1,016	23.6	24,750	12.0	36.5
Hats and Caps.....	532	9.0	22,710	8.5	29.8	483	6.4	16,173	6.5	24.8
Hosiery	359	15.5	28,885	6.7	29.1	248	10.9	14,788	4.4	18.4
Iron and Steel.....	1,519	250.9	159,529	62.7	335.9	3,939	216.2	148,773	79.2	359.4
Jewelry	739	11.4	12,697	6.4	22.2	681	11.7	10,691	4.4	22.4
Leather.....	5,626	73.3	40,260	16.4	200.0	7,569	61.1	35,243	14.5	157.2
Liquors, distilled...	844	24.2	6,502	2.6	41.0	719	15.5	5,131	2.0	36.1
" malt.....	2,191	91.2	26,220	12.1	101.0	1,972	48.7	12,443	6.7	55.7
" vinous....	117	2.5	967	.2	2.1	398	2.3	1,486	.5	2.2
Lumber	26,911	181.1	147,956	31.8	233.2	26,945	161.5	163,637	46.2	252.3
Machinery	4,958	154.5	145,351	65.9	214.5	2,897	101.1	83,514	47.8	138.5
Marble and Stone-work.....	2,846	16.4	21,471	10.2	31.4	1,972	16.2	18,909	10.0	30.2
Masonry.....	1,591	3.9	16,020	6.8	20.5	2,264	2.5	11,043	4.2	14.5
Meat Packing and Slaughtering..	872	49.4	27,297	10.5	303.5	259	22.1	6,485	2.6	62.1
Painting & Paper-hanging	3,968	5.6	17,711	7.9	22.4	3,119	3.1	11,386	4.3	14.2
Paper.....	692	46.2	24,422	8.5	59.1	669	34.3	17,910	7.1	48.6
Plumbing and Gas-fitting.....	2,161	5.9	9,684	4.7	18.1	705	3.7	4,783	2.2	10.3
Printing & Publ'ing	3,467	62.9	58,478	30.5	90.7	2,159	33.9	25,188	16.0	57.9
Rubber Goods.....	90	6.0	6,268	2.2	13.7	56	7.4	6,025	2.5	14.5
Saddlery & Harness	7,999	16.5	21,446	7.9	38.0	7,607	13.9	23,557	7.0	32.7
Sash, Doors and Blinds.....	1,288	20.4	21,898	8.5	36.6	1,605	21.2	20,379	10.0	36.6
Sewing-machines...	124	13.2	11,375	5.3	15.9	69	9.5	8,421	5.7	15.8
Shipbuilding, etc...	2,188	20.9	21,345	12.7	36.8	762	9.1	11,063	5.5	17.9
Silk Goods.....	382	19.1	31,337	9.1	41.0	88	6.2	6,699	1.5	12.7
Soap and Candles...	629	14.5	5,289	2.2	26.5	614	10.4	4,422	1.9	22.5
Sugar and Molasses	49	27.4	5,857	2.8	155.4	1,091	30.9	27,181	4.4	119.7
Tin, Copper, and Sheet-iron ware...	7,595	22.2	26,248	10.7	48.0	6,646	21.0	25,823	9.5	40.6
Tobacco and Cigars	7,674	39.9	87,587	25.0	118.6	5,204	24.9	47,548	14.3	71.7
Woollen Goods.....	1,990	96.0	86,504	25.8	160.6	1,938	97.1	77,870	26.6	151.2
Worsted Goods.....	76	20.3	18,803	5.6	33.5	102	10.0	12,950	4.3	22.0

Aggregate value of manufactures produced in census year 1880, $5,369,579,191.
Aggregate value of manufactures produced in census year 1870, $4,232,325,442.
Aggregate value of manufactures produced in census year 1860, $1,885,861,676.
Aggregate value of manufactures produced in census year 1850, $1,019,106,616.
No returns of manufactures approximating completeness were made in any census prior to 1850.
The total value of the products of agriculture, manufactures, mining, forestry, and fisheries of the United States in the year ending June 30, 1883, was estimated as at least $10,000,000,000.

In the same year 1883 the operations of the United States Patent office were as follows,

Number of applications	34,576
Number of caveats filed	2,741
Number of patents issued	22,883
Cash received at the Patent office	$1,146,240
Cash expended by the "	675,234
Surplus cash	471,006

There are no manfuacturing industries, to speak of, in the British, French, Danish, or Dutch West Indian possessions other than those connected with agriculture and mining, of which I have spoken in the first division, and with repairing vessels, building boats, etc. Manufactured goods used in those colonies are imported from Europe or the United States.

III. COMMERCE.

After the discovery of America, the Canary islands were for a long time of greater value to Spain, commercially, than the new continent, except as regarded the precious metals. But the time came when the Spaniards gave their exclusive attention to the gold and silver mines of America. The necessaries of life rose in price, first in Spain, and afterwards throughout Europe. America was less a trading than a mining possession of Spain. It is not the province of this book to give a history of that nation; but as a point connected with American interests during her domination, it will not be out of place to say here that her peculiar policy brought about her decadence. Scarcely had a century elapsed since the establishment of Spain's empire in America, when in spite of her fine coasts and harbors, her rich soil, and splendid climate, she sank into poverty, ignorance, and helplessness. Early in the 17th century, her population was reduced one half, her live-stock to a third of her previous quantity. Finally she lost the bulk of her American colonies.

The policy of the Spanish crown, at this period, has no parallel in the history of mankind. To drain the American colonies of their wealth, and draw it to Spain was the whole aim of its legislation; and a prohibitive system of trade was practised which clearly showed its indifference to colonial prosperity. Articles of necessity or luxury called for by the Americans had to be brought exclusively from Spain, and trading with foreigners was made a heinous offense. One only port of Spain—Seville first, and Cadiz afterward—was permitted to trade with America. The immense influx into the peninsula of precious metals, by making labor almost unnecessary, caused a general decline in all kinds of industries; and Spain, which had formerly been a great industrial nation, had to resort to foreign markets, not only to supply home consumption, but also the needs of the colonies. This naturally increased the drainage of wealth from America. The foreign merchandise reached the colonies at greater cost because of additional duties and traders' profits. Such a system developed smuggling as a regular industry, with the usual accompaniment of corruption of officials. The contraband trade flourished, especially when the mother country was at war with one or more foreign powers, and her commerce was reduced to the lowest ebb. Indeed, smuggling became so firmly grafted that it could not be suppressed. It is true that there were occasional intervals of animation perceptible in Spanish commerce during the 17th and 18th centuries, but they were merely spasmodic.

The regulations governing intercolonial traffic were no better devised. The same spirit was at the bottom, producing similar

evils to those regarding trade with foreign nations. A direct trade was allowed, however, between New Spain and the Philippines, through Acapulco, subject to many restrictions. Under a new franchise with increased privileges granted in 1734, the Philippine trade flourished till near the end of the century, the imports into New Spain consisting chiefly of raw silk, colored cotton fabrics, and Chinese earthern-ware. By 1794 the trade, however, had so much decreased that no fairs were held in Acapulco for lack of attendance. In 1792 and 1793, and in the following year no fleet came. The trade afterward revived somewhat; according to Humboldt the amount of bullion annually shipped averaged $1,000,000, and sometimes reached $1,800,000. Besides the Philippines trade at Acapulco, there was some trading carried on between New Spain and Perú at the same port, but under such restrictions as to reduce it to a very limited scale. Two vessels of 200 tons burden each were permitted annually to visit Acapulco, and the goods they took paid an export duty of two and a half per cent. Later only one vessel was permitted under still greater restrictions, and in 1634 even this petty concession was withdrawn. The clamps were thus tightened for the benefit of the Seville monopolist. During the 18th century the trade was somewhat revived, but it was only in 1794 that Spain understood how wrong had been the policy till then pursued, and free trade between the colonies was decreed. The wise and true-hearted Cárlos III had begun since 1765 somewhat to relax the prohibitions, opening a number of ports of Spain to trade with certain colonies, and in 1778 the privilege was extended to all the Indies. These liberal measures gave much impulse to commerce. Finally, the system of fleets under convoy was abolished, and in 1799, owing to war between England and Spain, neutral vessels were permitted to trade directly between the Peninsula and the colonies. That permission was followed by a still more liberal law, which remained in force from 1805 to the middle of 1809. After this, occasional permits were given to parties residing in the colonies to bring cargoes from foreign ports. About the same time, and later on, other measures were adopted to remove all impediments to trade. The latest one, of 1820, opening several ports on the two seas to commerce, was not carried out. Licit trade continued, however, at Vera Cruz and Acapulco.

The routes of intercommunication and travel to Spanish-America are as follows: to the ports of Mexico on the gulf of Mexico, the islands of St. Domingo, Cuba, and Porto Rico, and the ports of Central and South America on the Atlantic coast, by sailing vessels or steamers from the United States or Europe; the ports of Mexico and Central America on the Pacific are usually reached by steam or sailing vessels from Panamá, or from the ports of the United States situated on the same ocean. Sailing vessels from Atlantic ports, visiting those in the Pacific, go and come round Cape Horn. The ports of South America, on the west or Pacific coast, are reached by steamships sailing from Panamá, or by steamers crossing the straits of Magellan. The facility of communication across the isthmus of Panamá by railway has existed since 1855, from which time several steamship lines under various flags, have conveyed

mails, merchandise, and passengers on the Atlantic sea to and from Colon, and on the Pacific, to and from Panamá. Most of the steamers on the Atlantic side touch at the ports of the West Indies in going and coming. Communication by steamship between the island of Cuba and Europe, and between Cuba and the United States is quite frequent. The other Antilles are also regularly visited by mail steamers.

Early in 1886 the Mexican Transatlantic Steamship company having failed to meet its liabilities, the ships were seized for debt and sold. The government at a later date granted to the Spanish Transatlantic Steamship company a subsidy of $5,000 for each round trip, besides a decrease of 2 per cent. on the duties accruing on cargo brought by its steamers. Other powers, in view of this, claimed the treatment of the most favored nations.

The following lines make use of the isthmus of Panamá for their operations, to-wit:

American: The Pacific Mail Steamship company, having steamers which run between New York and Colon, between Panamá and the several Central American ports; and between San Francisco and Panamá, via Acapulco and other Mexican ports north of Acapulco. English: The Royal Mail Steamship company, whose steamers render service from Southampton to Colon and Barranquilla, and Santa Marta, and maintain the communication with all the West India islands and Vera Cruz, etc. English: A line of steamers plies between Panamá and Guayaquil. English: Another line, the Pacific Steam Navigation company, runs from Panamá to the South Pacific as far as Valparaiso. The last two lines are managed by a company of Liverpool. The line to the South Pacific runs weekly each way from Panamá to Callao, calling at the ports of Buenaventura, Tumaco, Guayaquil, Payta, connecting at Callao with their line to Valparaiso, and calling at eighteen different ports along the coast. This line therefore connects the west coast of South America with Liverpool, via Panamá. It also connects that coast with Liverpool via the straits of Magellan. The line from Panamá to Guayaquil runs one steamer per month each way, calling at Ballenita, Manta, Esmeraldas, Tumaco, and Buenaventura. English: The West India and Pacific Steamship line, Liverpool and the mouth of the Magdalena river, touching at several West India ports, and making the voyage to Barranquilla in fifteen days. A steamer leaves Colon for Colombian ports and Europe almost every day under the flag of England, France, Spain, etc. The Pacific Mail Steamship company is the only American line. There ought to be a regular line from the Gulf ports of the United States running to Colon, as well as from New York. At Cartagena, about fifteen transatlantic steamers arrive monthly. The Spanish line of the Marquis del Campo attempted in 1887 to place its ships between Panamá and San Francisco, touching at the Central American ports; but after a short trial discontinued the service. American steamers ordinarily run between San Francisco and Guaimas, and also between San Diego and ports in Lower California.

There is a regular communication by steam between St. George's in the Bermudas, and New York, the government of the colony subsidising the line.

The following lines of steamships visit the port of Kingston: The Compagnie Générale Transatlantique. This company runs different lines, viz: between Havre and New York; between St. Nazaire and Colon, touching at Pointe-a-Pitre; Basse Terre, Saint Pierre, Fort-de-France, La Guaira, Puerto Cabello, and Sabanilla; between St. Nazaire and Vera Cruz, touching at Habana; an auxiliary line performs the service from Fort-de-France to Cayenne; between Marseilles and Colon, touching at Fort-de-France, Saint Pierre, Pointe-a-Pitre, Basse Terre, St. Thomas, Ponce and Mayagüez in Porto Rico, and Santo Domingo; between Havre, Bordeaux and several ports in St. Domingo and Hayti, touching at Saint John (Porto Rico) and St. Thomas; and, between Havre, Bordeaux and Colon, via Pointe-a-Pitre, Basse Terre, Saint Pierre, Fort-de-France, Trinidad, Campadono, La Guaira, Puerto Cabello, and Sabanilla. Spanish: The line of Marquis del Campo plies from Cuba to Colon and Barranquilla, etc. German: Hamburg Steamship line. This line also connects Hamburg with Callao, via the straits of Magellan. English: Steamship line from Liverpool. The Atlas Steamship company has ships plying twice a month between New York and Colon. The Royal Mail Steam packet company, having six transatlantic mail ships, five cargo ships, three for intercolonial service, and two on the Gulf route. The West India and Pacific

Steamship company (limited) with 16 ships; the Clyde line between Jamaica, London, and Glasgow; and the Atlas Steamship company from New York and Kingston, every fortnight. There is also a steamer doing Jamaica coastwise service, leaving Kingston every ten days, and visiting 14 ports on the voyage out and back.

There is constant communication by steam between the United States and Habana.

The little island of Curaçoa is also connected with the outer world by the French Transatlantique company.

Brazil liberally subsidises steamship lines to keep up regular communication with Europe and the United States, and between her several river ports.

In 1886 there were 23 lines of steam vessels receiving subsidies every year from the Brazilian government to the amount of $1,000,000 a year. The North American line of steamers plying between New York and Rio had a Brazilian yearly subvention of $100,000.

In 1877 there were about thirty companies—their number has probably been increased since—both foreign and native, which had steamships navigating Brazilian waters, some of them receiving subsidies from the government, and several carrying on the river trade. The steamers of the Amazon Company (British) plying on that river to Tabatinga, and ascending some of its most important tributaries, travelled in 1877, collectively, 2746 miles, touched at 120 stations, and conveyed 13,976 passengers, and 20,000 tons of merchandise, besides the mails. Other companies performed the same service on other tributaries of the Amazon, and on the São Francisco, and others flowing into the Atlantic; and finally from Montevideo, on the Plata, Paraná, and Paraguay to Cuyabá in Matto Grosso.

It is understood that the Argentine Republic paid a heavy yearly subsidy to the Bermejo River Navigation company.

Some of the countries mentioned in this work have magnificent fluvial systems, which afford them immense facilities for internal communication; and others are not wholly devoid of this advantage. The most favored are Colombia, Venezuela, Brazil, the Plate region, Bolivia, Perú, and last, but by no means least, the United States of America.

In a country having the formation of Mexico, there is very little space for the development of large river basins. The greater portion of the existing streams are more like mountain torrents rushing impetuously from terrace to terrace, seaward. The rivers are of little use for agricultural purposes, and are navigable only for short distances in their lower reaches. The Rio Grande del Norte, by far the largest, is navigable by large vessels only for a few miles from its port of Matamoros. The Rio Grande de Santiago, the largest on the Pacific slope, is too much obstructed by falls and rapids to be of any use. On this coast the next in importance is the Rio de las Balsas, or Mescala, which, like the Pánuco, Alvarado, Coatzacoalcos, Grijalva, and Usumacinta emptying in the Mexican Gulf, is subject in the rainy season to freshets. The chief rivers running into the Gulf of California are the Culiacán, Fuerte, Maya, Yaqui, and Colorado. This last named is navigable by the largest vessels from the frontier to its mouth.

As for lakes, the diminished size of the Anáhuac lakes shows they have been, since the Spanish conquest, drying up. Lake Chapala, traversed by the Rio Grande de Santiago, is given an area of 1,800 miles. This lake is navigable by steam. The Texcoco and Chalco, of those in the Anáhuac plateau, are worthy of notice for their splendid scenery.

From the high sierras and volcanoes of Central America descend numerous streams which meet on the plains below, forming beautiful lakes, or swelling into rivers which flow on to the sea. The latter cannot be very long because of the narrowness of the region they traverse, but they are by no means insignificant. The most important rivers are the Usumacinta, known also as the Lacandón, Pasión, etc., in Guatemala, of about the size of the Garonne or Elbe in Europe, or the Hudson in the United States; after drain-

ing nearly half the state it pours its waters through several mouths into the bay of Campeche and the Laguna de Términos. The Dulce unites the bay of Honduras and Gulf of Dulce. The Hondo, the Belize, or Old River, the Motagua, and the Polochic, the Black, or Tinto, the San Juan del Norte, Coco, also known as Telpaneca and Wanks, Grande or Chocoyos, and the Mico or Blewfields, the Tipitapa, uniting lakes Nicaragua and Managua, the Paz, separating Salvador and Guatemala, and finally the rapid and deep Lempa, the largest on the western shore, and which at its lowest ebb exceeds 40 yards in breadth. All these rivers are navigable for some distance, or can be made so by the expenditure of money.

Central America has several lakes, some of which have occupied the attention of scientists, statesmen, and merchants. The following are the most noted ones: The Atitlan, in Guatemala, covering upwards of 250 square miles; believed to be unfathomable, a line of 300 fathoms not reaching bottom. It receives the waters of many rivers, but its outlet has not been found. Golfo Dulce or Izabal lake, is of about 50 miles in circuit. The small Amatitlan, about twenty miles from the city of Guatemala. In Honduras, lake Yojos. In Nicaragua we have lake Nicaragua, whose surplus waters flow to the Atlantic by the river San Juan del Norte. Lake Nicaragua is a perfect inland sea, 96 miles long, and 40 miles in its greatest breadth, forming an ellipse with its main axis due northwest to southeast. Its depth in some parts is 45 fathoms, and its area must be at least 2,000 square miles. Lake Managua is 38 or 39 miles long, and 16 in its greatest breadth. It has little depth and several sand-banks render its navigation difficult. Laguna de Masaya, 340 feet lower than the city of the same name, which is 750 feet above the sea-level. Its area is about 10 square miles.

Colombia is well provided with water transit. Her principal rivers are the Magdalena and Cauca, to which must be added the upper and lower Cauca, Funza, San Juan, Tuira, Chagres and Chepo. The republic possesses also the right of navigating the Amazon and Orinoco, branches of both furnishing communication to them for the few towns existing on the eastern slopes of the mountains.

The Magdalena, whose mouth is obstructed by bars, is from 700 to 800 miles long from the Atlantic ocean to the town of Honda, where it is interrupted by a rapid, which might be removed. Steamers of 50 to 200 tons ply between Honda and Barranquilla. Above this rapid the river is again navigable for small steam vessels. The whole stream is subject to alternate floods and falls which seriously obstruct navigation. The Magdalena, therefore, connects the Atlantic departments with those of the interior, besides aiding to maintain the republic's intercourse with foreign nations. The Cauca is a tributary of the Magdalena. Its stream is very impetuous. The Funza, rising 100 miles north of Bogotá, runs southwest to Tequendama, and plunges down a precipice over 600 feet high. The Atrato is navigable from the port of Coquito, on the Atlantic, to a place situated about 90 miles above Quibdó, in all about 294 miles. Of this distance, 216 miles can be traversed in light-draught steamers and large canoes, and the other 78 in small canoes. The San Juan, and upper and lower Cauca are also available for domestic trade; but merely on a small scale, and is only indirectly of interest to foreign commerce. About 150 streams flow, from the ridge traversing the isthmus of Panamá, to the Atlantic, and more than double that number to the Pacific. The largest, called Tuira, is 160 miles long, navigable about 102 for barges, and empties into the Gulf of

San Miguel. The Chagres is navigable for bongos about 30 miles, and runs into the Caribbean sea. The Chepo flows into the bay of Panamá.

Small lakes abound in the mountains of Colombia. The Guatavita is a small historic lake near Guatavita, into which the Indians threw their valuables when they were about to abandon their country to the Spaniards at the time of the conquest.

The river Orinoco, which is chiefly situated in the State of Bolívar (Venezuela) may be called the key of the vast continent of South America. Venezuela possesses many other streams, and also the famous lake Maracaibo, besides numerous other sheets of water of less importance.

The Orinoco and its immense affluents afford the means of traversing the whole of South America. The Orinoco is joined on the southwest by the Meta to within three days' journey of Bogotá in Colombia; and on the south it is united by the Casiquiare to the Rio Negro and the mighty Amazon, thus making Brazil accessible to ships from Venezuela. On the north it unites all the Venezuelan states, forming a grand highway of communication. The trade that must some day be developed on this mighty stream and its tributaries will be of incalculable importance. There are in the republic 1047 rivers, of which 486 are affluents of the Orinoco, 290 empty into the sea, 124 run into the Gulf of Paria, 120 into lake Maracaibo, and 22 into lake Valencia. There are also upwards of 200 lakes and lagoons. The Maracaibo and Valencia are the only important ones, the former being 100 miles long with a maximum breadth of 75 miles, and having an area of 6,500 square miles; the Valencia has an area of 66 square miles. It bounds the Aragua valley, and is some 1,600 feet above the sea-level. The Unare produces good salt. Other somewhat important lagoons are the Taiguaiguai, with an outlet to the sea, and navigable by schooners. The Lagunillas in Mérida is noted for its sesquicarbonate (trona of commerce). Most of the smaller lagoons are dry in the summer season.

Ecuador is liberally endowed with water-ways, nearly all of which are valuable as a means of communication. The chief of them is the Amazon, which is known here as the Marañon, and on the southern boundary of the republic receives several tributaries which take their waters within her boundaries.

The principal affluent is the Napo, which runs generally in a south-east course a distance of about 600 miles through the plains of Iricute, receiving the Arajuno, Yasuni, Coca, Aguárico, Curaray, and other tributaries, to its junction with the Amazon. The Napo is navigable by steamers from its mouth to the confluence of the Coca, about 400 miles; after that it is navigated by canoes. The Pastaza has a run of 540 miles, 270 of them navigable by steamers, and sixty more by small craft. Its rise is in the same region as the Napo, and it joins the Amazon in lat. 4° 35′ S., long. 76° 35′ W. The upper part of this river goes under the name of Patate. The Santiago, flowing from lakes Quinuas, Cajas, and Culebrillas, in the Cuenca valley, falls into the Marañon, near the town of its own name, and near the falls of Manseriche; it is 500 miles long, and may be navigated by steam for 300 miles. It receives the river Zamora and other important streams. There are smaller rivers, such as the Chinchipe, Morona, Tigre, etc., which are navigable for greater or lesser distances. North of the Napo are the Putumayo and the Caqueta or Japurá, both of considerable importance; but neither is wholly within the territory of Ecuador. The first comes into it near San Miguel, traverses the northern portion of Oriente, and flows through Brazil to the Amazon. All the rivers on the west of the cordillera Occidental have shorter courses to the Pacific. The Guayaquil runs to the gulf of Guayaquil; is navigable for 75 miles to Babahoyo, and receives the waters of the Baba and the Daule. The Mira, Esmeralda, Chones, Charapotó, Jubones, and Tumbez are navigable only by boats, rafts, and small craft. Ecuador has no lakes entitled to the name. There are several lagoons, the Yaguarocha, in the plains of Imbabura, being one of the largest.

Brazil has three great basins, besides others of lesser importance. The chief basin is that of the Amazon; next is that of the Paraguay; and lastly, that of the São Francisco. The river Amazon

and its tributaries afford communication with the sea throughout the province of Grao Pará, Amazonas, Matto Grosso, and Goyaz, where the main stream meets the Paraná running south.

The Amazon, in the low lands, with the Negro, Casiquiare, and Orinoco, its affluents, flows over thousands of miles within Brazilian territory. Those affluents are navigable to the southern coast of the continent. The Amazon, flowing over 1,500 miles, receives eighteen affluents, nearly all of them rivers of the first order. This system of rivers affords uninterrupted navigation for steamers throughout the immense distance, above the first falls, situated on the boundaries of the provinces of Pará and Amazonas. By means of the Amazon system it is possible to reach the republics of Bolivia, Perú, Ecuador, Colombia, and Venezuela. For about 25 years steamers have been ascending and descending the Amazon with the utmost regularity, performing in ten days a distance of 1,740 miles between Pará, and Tabatinga on the frontier of Perú. Next to the Amazon is the Tocantins, the great river on the northern water-shed of Brazil. Rising in the Serra das Vertentes, the Araguaya, its longer head-stream, and the Tocantins, flow northward 900 miles, and unite at about 300 miles from their broad estuary, the river Pará, formed between the island of Marajo and the mainland. The Araguaya has branches 220 miles long, encompassing the Santa Anna island, which has a central lake of 80 miles in extent. The Araguaya is navigable, but the upper Tocantins is obstructed by falls. The Turyassú, Maranhão, and Paranahyba are the largest of the other rivers in the north-eastern slope. The last-named flows 700 miles, has many tributaries, and is navigable for a great distance. The São Francisco rises in the Serra de Espinhaço and the Vertentes of Minas Geraes, and flows, N. and E. 1,800 miles, obstacles rendering it unnavigable; but below the rock-impeded channel it becomes a broad, calm river, which is navigated by steamers from Porto das Piranhas to the sea. South of the São Francisco, the chief rivers are the Paraguassú, the largest in the province of Bahia, which has many falls, the Contas or Jussiapé, a considerable river in the south of the province, and also unnavigable; the Belmonte or Jequitinhonha, rising in the high mountains of Minas Geraes, interrupted by rapids and cascades; the Doce or Chapotó, in the province of Espirita Santo, affording a wide stretch for navigation, with portages, at its reef; and the Parahyba do Sul, running between the Serra da Mantiqueira and the coast range of Rio Janeiro, which is regularly navigated from its mouth for 60 miles to São Fidelio. Any one of these coast streams is two or three times the length of the Thames.

In the southern water-shed are the rivers Paraná and Paraguay. The Paraná's longest head-stream is the Rio Grande or Pará. The Paranahyba joins the Grande on the right from the Pyreneos range in the north, and farther on the Paraná-Panema, with its tributary, the Tibagy, comes in on the left bank from the inner slopes of the south coast range; the Pardo, Ivinhima, and Igatimi are smaller tributaries on the left bank, from the interior ranges. After the confluence of the Grande and Paranahyba the Paraná assumes its proper name and runs southward from Brazil, forming the boundary between Brazil and Paraguay. The Urabupunga fall, 40 miles below the confluence of the Grande and Paranahyba, obstructs the navigation of the upper river; but hence to the great *salto* of Guayrá on the Paraguayan frontier, it is free navigation. The salto of Guayrá, also named Setequedas or Seven Falls, is the greatest cataract of Brazil. Below this fall the river has a tributary called the Y-Guasú or Curityba. The Paraguay river is far superior to the Paraná as a navigable stream, and also on account of its grand natural outlet to the southward. Its sources are in certain small lakes on the southern slope of the Serra das Vertentes, immediately opposite the head-streams of the Tapajos, and it flows thence southward, fed by many streams from the range. Its principal tributary is the Cuyabá or São Lourenço, which rises at a short distance east of the Paraguay, but joins it 400 miles to the south. The Taquari, Mondego, and Apa are important tributaries from the range which divides the basins of the Paraguay and Paraná; and from the hills of eastern Bolivia the San Juan and Bahia Negra join the Paraguay on the right bank. The Paraguay is navigable throughout its course, and is regularly traversed by large Brazilian steamers from Rio de la Plata to Curumbá, about 1,000 miles in direct line from Buenos Aires. Thence smaller vessels carry on the traffic for 200 miles farther, by the São Lourenço to Cuyabá in the heart of inner Brazil.

The whole Plate region, which includes the Argentine Republic, Uruguay, and Paraguay, enjoys, together with Brazil, the advan-

tages of water-ways afforded by the Uruguay-Paraná-Paraguay system of rivers, which united form the La Plata.

The La Plata river is, properly speaking, a continuation of the united rivers Paraná, Paraguay, and Uruguay, forming an estuary 165 miles long, and 120 miles wide at the entrance, narrowing to about 30 miles at the mouth of the Uruguay, which runs into it at some 65 miles above Buenos Aires. It is an estuary of very little depth, and above Montevideo two-thirds of it is obstructed by shoals, which have only about 12 feet of water over them. The extent of country drained by the waters of these rivers is about 1,200,000 square miles. The currents are strong, but variable. The water is fresh to within 10 or 15 miles of Montevideo. Paraná river, rising in south Brazil, after receiving numerous affluents (the chief of which is the Paraguay), and flowing over 2,000 miles, empties into the La Plata 165 miles from the sea, thus forming with the La Plata a stream of 2,165 miles in length. The Paraná is navigable for the largest vessels to its junction with the Paraguay, some 850 miles; for small steamers, 150 miles higher; and for small boats about 350 miles farther up. The breadth is very variable; in some places it is of three miles, in others not over 500 yards. The Paraná and its affluents being subject to periodical rises, vessels drawing 14 to 15 feet can reach Corrientes, and others of less draft can get to the Brazilian province of Matto Grosso, about 2,000 miles from the sea. The Paraná's rise and fall in July to September is irregular. In October the regular fall begins, and the river is lowest in December. The difference between high and low water is about 12 feet. The only port on the Paraná of interest to foreign commerce is Rosario, 218 miles above Buenos Aires, on which information is given elsewhere. Vessels drawing 15 feet can ascend to Rosario when the river is low, from June to December. All vessels that can reach Martin Garcia may also reach Rosario. Vessels drawing 12 or 13 feet go as far as Paraguay; those drawing 10 feet can reach Paraná, 92 miles above Rosario. The chief tributaries of the Paraná within the Argentine Republic are the Salado, flowing south-east from the north-west part of Salta, some 600 miles, and emptying into the Paraná below Santa Fé; the Tercero, flowing from the south-east, receives the Cuarto, and empties above Rosario. The Salado is said to be navigable from the plains of Salta.

Paraguay river, rising at an elevation of over 1,000 feet above the sea, in Brazil, flows southward, traverses the great Xarays marsh, and empties into the Paraná near Corrientes. The length of the Paraguay is about 1,900 miles. The width is variable; the depth irregular, changing from 20 fathoms in some places to 5 or 6 feet in some of its passes. It has, like the Paraná, periodical rises, but not at the same time; the rise beginning toward the end of February, and continuing till June, when the fall takes place. The rise is quite regular. When the Paraguay is low, the Paraná is high, the waters of the former being forced back by those of the latter. The difference between high and low water is about 9 or 10 feet. During the average rise, vessels drawing 12 or 13 feet can reach Asuncion, the only port open to foreign trade in Paraguay. Those of 9 feet can get to that port most of the year; but at low water 6 or 7 feet only can be counted on. In favorable seasons, vessels drawing 5 feet can reach Cuyabá, situated 2,100 miles from the sea. Pilots for Asuncion are obtainable at Pilar, or Nembucu, 50 miles from the mouth of the river. The Paraguay and Paraná rivers are on either side of Paraguayan territory. The tributaries running westward to the Paraguay are, to some extent, navigable, while those flowing eastward to the Paraná are interrupted. The Paraguay has two large affluents, the Pilcomayo and Bermejo, which flow south-east through the Gran Chaco; the former is too shallow for navigation; while the latter has been navigated by steamers for 1,200 miles of its tortuous course.

There are other rivers worthy of notice in the Argentine Republic. The Colorado or Mendoza flows into the Atlantic at Union bay. It is navigable for 100 miles from the sea. The Negro, forming a part of the southern boundary of the republic, falls into the Atlantic below Cármen. It has been navigated almost throughout its whole course, or about 500 miles.

The Uruguay rises in Brazil and falls into the La Plata. Vessels of about 12 feet draft can navigate to Salto, and smaller ones farther up. But only those of very light draft can reach Fray Bentos, the port of Gualegaychú. At Concepcion de Uruguay vessels can go to within a cable's length from the quay. The navigation of the Uruguay is easy, the currents not being so strong as on the Paraná, and the channel is nearly straight, does not change so often, and has but few sand-banks. A chain of rocks obstructs the navigation some 210 miles from the mouth of the river, and 65 miles above Paysandú. The heavy spring rains in Brazil render the river subject to periodical floods, occurring in Septem-

ber and October, sometimes with great rapidity, the stream attaining in its narrower parts, a height of about 30 feet; above Salto 15 feet. There are, besides, occasional floods at other times in the year. The prevailing winds from the northward ordinarily follow the course of the river, as in the Paraná. At Fray Bentos, the river is six miles wide; the channel is quite near the eastern bank. It is necessary to cross in order to enter the small stream Gualeguaychú. This little river is 5 or 6 miles long, and has a bar at its entrance. Vessels of great draft ascend when the water is a little above the average depth, usually when the wind is from the southward. The next port is Concepcion de Uruguay, a little below Paysandú. The little river Concepcion admits vessels of light draft. Here are embarked the products of Entre Rios. There is a regular weekly communication between Buenos Aires and the chief town of Uruguay as far as Salto. Steam communication exists connecting Rosario, Paraná, Corrientes, Asuncion, and Coimbra in Matto Grosso, Brazil, with Buenos Aires.

Aside from the Paraguay and Paraná, which are rivers common to the whole Plate region, there are several others which properly belong to Paraguay. The largest of them is the Tibicuari, rising by two branches in the cordillera of Villarica, or rather the Cuchilla Grande, and after a tortuous course of 250 miles, gathering water from many streams. For about 100 miles from its mouth, it has a mean width of 300 yards; it might, with no great expense, be made navigable for many leagues for steamers drawing two feet. The Jujuy, another feeder of the Paraguay, might be made to serve for the transportation of maté to San Pedro, below which town it runs into the Paraguay, though in the dry season it is navigable only by boats and canoes. The Ipané, 5 miles south of Concepcion, is suited only for boat navigation; the Apa, formerly named the Corrientes, the northern boundary of Brazil, has a width of 300 yards, and a depth of about 9 feet for several miles. There are other streams, but their courses are too precipitous for navigation.

In the province of Corrientes is the Iberá lake, 130 miles long, and 90 miles wide. It is, however, navigable only for canoes. The chief permanent lake of the Argentine Republic is the Guanache in the province of Mendoza. There are also the Bebedero, and the Urre, a bitter lake, both of some magnitude.

The Rio Negro in Uruguay, rising in the sierra of Santa Ana, flows for 350 miles, and into the Uruguay river about 80 miles from the junction of the latter with the Paraná. The Dayman, 100 miles long, is navigable 18 miles; the Queguay, 150 miles long, can be navigated 30 miles; the San José and Santa Lucía are respectively 100 and 120 miles long, unite 12 miles from the estuary of the Plata, and are navigable about 25 miles. The Ceballate, flowing north-east, receives numerous streams and flows into lake Merim in Brazil.

An Argentine explorer of considerable repute, F. P. Moreno, visited early in 1877 the partly unexplored lakes forming the sources of the Santa Cruz river in Patagonia. He ascended this river in a boat with one companion, three boatmen, and two servants. With much difficulty, owing to the rapid current, he reached its head, a lake in lat. 50° 14′ 20″ S., long. 71° 59′ W. from Greenwich. He next crossed a mesa of 2,500 to 3,000 feet elevation, belonging to the tertiary period. Crossing the Chalia, a river described by Viedman, in the last century, and explored by Moreno himself, a few weeks previously, from its junction with the Chico, for 90 miles, he arrived at a series of lagoons, surrounded by pasture-land, and to the west of these, at a hitherto undiscovered lake, surrounded by snow-capped mountains 3,000 to to 5,000 feet high, which he judged to be an arm of a still larger lake. It was in lat. 49° 12′ south, and he named it Lago San Martin. Returning southward, he came to Viedman's lake, discovered in 1782, and wrongly called Capar lake on the maps. It was the largest lake he had seen, extending to the foot of the cordilleras, the Chalten volcano rising from its upper end. From its southern end runs a river, 200 yards wide, in lat. 49° 49′ south, which connects it with the lake out of which flows the Santa Cruz river; it enters the latter lake in lat. 50° 11′. This lake, which is distinct from Viedman's, he called the Argentine. Huge masses of ice were floating thereon. The Santa Cruz, then much flooded, had a depth of 70 to 84 feet, and such was the rapidity of its current that the boat completed the distance in 24 hours which had required one month's hard work to ascend.

There are in Bolivia rivers of great importance, having their origin in the eastern slope of the cordillera Real, and communicating with large navigable rivers, which run into the Atlantic ocean. Lake Titicaca also affords some facilities for internal trade.

The Paro or Beni river has its origin in the vicinity of the city of La Paz;

the Guapey rises near Cochabamba, sweeps around the cordillera de Cochabamba on its southern and eastern bases, and joins the Mamore. The Beni and the Guapey run to the north-east to mingle their waters with those of the Madeira and the great Marañon or Amazon. The Pilcomayo, rising near Potosi and Chuquisaca, and the Bermejo, forming together the Tarija valley, flow to the rivers Otuquis, Tucabaca, and Latirequiqui, flowing to the Paraguay, would afford the desired navigable route. Difficulties have occurred, and nothing has been accomplished. Navigation having been recently opened on the Bermejo from the Paraguay to the province of Jujuy on the southern frontier of Bolivia, it is likely to afford to some extent an outlet, and thus bring about a development of the resources of that portion of Bolivia. Since the seizure of her sea-coast by Chili in 1882, Bolivia has become perfectly land-locked. Her foreign commerce passes through the Argentine territory, unburdened by any tax. She has, moreover, by this means, ready access to the Atlantic sea-board. The Pilcomayo river being navigable throughout, with the completion of the Northern Central railway, an easy communication is established between both countries.

Lake Titicaca or Chuquito on the northern extremity of Bolivia, is about 80 miles long by 40 broad; its area some 3,200 square miles, and its greatest depth 700 feet. The frontier of Bolivia and Perú passes across the lake diagonally. The drainage is carried southward by the Desaguadero river to the great swampy lake of Aullagas in the south of Bolivia, while it is fed by streams from the Andes and the central cordillera. The Titicaca communicates with the smaller lake Pansa. It is very irregular in its form, but admits of extensive navigation by small vessels. It is understood that the Bolivian government has granted to an American citizen a franchise to navigate by steamers the Titicaca and the Desaguadero. The lake has been heretofore traversed by small steamboats, which in pieces, and with the utmost difficulty, were transported across the country. The object of the concession alluded to is to develop the mines which were worked in old times, and whose exploitation has recently become an object of great interest. The source of the Desaguadero is south of the Titicaca, 100 miles from the terminus of a railway, and zigzags for about 180 miles through the Andes, until it reaches lake Aullagas, which is a little lower than the Titicaca. The chief advantage of the aforesaid navigation is to render easy the transportation of ores to convenient railway stations.

Perú possesses the advantage of navigable water-ways, the chief rivers being the Marañon, the Huallaga, and the Uyacali. The lakes of the republic are the Chinchaycocha, Lauricocha, Titicaca, Arapa, Umayo, and others of still less importance.

The Huallaga river, rising north of Cerro de Pasco, and passing Huanuco, flows northward on the other side of the central cordillera for 300 miles. Breaking through the range at the Pongo de Chasuta, it runs into the Marañon. The Marañon is supposed to rise in lake Lauricocha, flows northward in a deep gorge between the Maritime and Central cordilleras for 350 miles, and forces its way through the mountains at the Pongo de Manseriche. The Marañon and the Huallaga enter the forests in the northern portion of the Montaña region, unite after separate courses of 600 and 400 miles, and flow eastward to the Brazilian frontier. The subsequent course of the Marañon has been described in connection with Brazil's water-ways. The other rivers existing in Perú are tributaries of the Uyacali, which is formed by the confluence of the Vilcamayu and the Tambo. Lake Chinchay-cocha is 36 miles long by seven miles broad, and 13,000 feet above the sea-level. Lake Titicaca has been already described. The Arapa, a few miles north of the Titicaca, is 30 miles in circumference. Lake Umayo is on higher ground, to the westward.

Chili has numerous water-courses traversing the interior for over 4,500 kilometres. The rivers of Chili are much larger, and more

numerous in the south than in the north. They are chiefly fed by the melted snow from the Andes; but winter rains often increase their volume of water. A few are navigable for a short distance, and nearly all are of immense benefit to agriculture. The number of the most noted ones is 24.

The largest river is the Biobio, which after running 222 miles, empties into the Pacific. The next is the Aconcagua, 180 miles long, and is followed by the Canten, and Maule, each of which is about 150 miles in length. There are several lakes, most of them small. The Villarica or Llauquen, however, measures 100 square miles. The Aculco in Santiago occupies about 8,000 acres.

The island of St. Domingo or Hayti has several rivers, nearly all of which are obstructed by sand-bars, and but few are navigable even for short distances. There are also numerous lakes.

The river Ozama admits the largest vessels into the harbor, and for several miles is four fathoms deep. The lakes Enriquillo or Jaragua, called by the French Etang Salé, and Azua are salt; the former in the Neiva valley is 27 miles long by 8 miles wide; and the latter is about half that size. South of them is the fresh-water lake Hicotea or Limon, of about the same extent as the Azua, and without any visible outlet.

The rivers of Cuba are of small extent; they flow toward the north and south. The only ones worth mentioning as navigable streams are the Cauto and the Sagua.

The Cauto rises in the Sierra del Cobre and falls into the bay of Buena Esperanza on the southern coast, after running about 150 miles, of which some 60 miles are navigable by boats, though obstructed at low water by bars. The Sagua rises in the Sierra del Escambray, and empties into the sea opposite the Boca de Maravillas. It is navigable for about 15 miles.

In Porto Rico there are a few mountain streams, navigable for a few miles by small vessels. The coast is lined with navigable lagoons.

The rivers of the United States of America are noted for their magnitude and importance. They are comprised within four distinct classes: 1st. The Mississippi and its affluents, which drain the region situated between the Alleghanies and the Rocky mountains. 2d. The rivers which rise in the Alleghany chain and run into the Atlantic. 3d. The rivers of the southern slope flowing into the Gulf of Mexico; and 4th. Those which flow into the Pacific ocean. There are other streams not included in the four classes. The country is also endowed with a most magnificent system of lakes; in fact, few countries in the world possess so many lakes as the United States. In order to connect all these natural watercourses, a general system of canals has been devised, which serve as links to join the several rivers and lakes. Thus was established an unequalled inland water communication from north-east to south, and from south to north-west.

The great natural water-ways are the following: The Mississippi with its affluents. This river has a course of 3,400 miles, about 2,200 of which are navigable; the Missouri, which after running some 2,500 miles joins the Mississippi at St. Louis, and is navigable from below the Rocky mountains. The Kansas and Platte are tributaries of the Missouri. Close to the source of the Platte rises the Arkansas, which running to the south with many sub-tributaries, joins the Mississippi at Napoleon. Another great affluent of the Mississippi is the Ohio, which rises in the Alleghany mountains near Pittsburg, and flowing through Cincinnati, Louisville and Evansville, joins the Mississippi on its eastern bank below St. Louis at Cairo. Other affluents of the Mississippi are the St. Peter's, Rock, Iowa, Des Moines, Red river, Minnesota, Yazoo, Big

Black, St. Croix, Wisconsin and Illinois, all of which are of commercial importance. The Ohio becomes navigable at Pittsburg, and flows nearly 1,000 miles before joining the Mississippi. It has a number of affluents, viz.: the Wabash, Miami, Scioto, Kentucky, Green river, Cumberland and Tennessee; the last named has a course nearly as long as that of the Ohio; from beyond Knoxville it joins the Cumberland at its confluence with the Ohio at Cairo. Thus the Mississippi and its affluents water the vast extent of country contained in the immense plain which is situated between the Alleghany or Appalachian chain in the east, and the Rocky mountains in the west. Other commercial water-ways of the United States are the Chattanooga, Alabama and Tombigbee, all three important rivers, flowing into Florida bay. The most important rivers of the second division, beginning at the north-east are the Penobscot, Kennebec, Merrimack, Connecticut, Hudson, Delaware, Susquehannah, Potomac, James, Roanoke, Neuse, Cape Fear, Great Pedee, Santee, Savannah and Altamaha; most of them are upwards of 300 miles long, and navigable for a considerable distance from the sea. The chief rivers of the southern coast or third division, are: east of the Mississippi, the Appalachicola, Mobile, and Pearl; and on the west of the Mississippi, the Sabine, Neches, Trinity, Brazos, Colorado, Nueces and Rio Grande del Norte. This last named river, after a course of more than 1,400 miles, flows into the gulf of Mexico at Matamoros, the navigation being much obstructed. The most important streams west of the Rocky mountains necessarily have only short courses, owing to the short distance between the mountains and the Pacific ocean. They are, the Columbia, with its several tributaries, the Sacramento or Humboldt, and the San Joaquin, the last two named running into the bay of San Francisco; and the great Colorado of the west, with a course of 850 miles, to the head of the gulf of California, one of its branches rising near Salt Lake City and another beyond Green River City. This river is not yet much used for commercial purposes.

Other rivers, which are not comprised in the four divisions, are the shallow ones of the Great Basin which have no outlet to the ocean; namely, Red River of the North, emptying into Lake Winnipeg in British Columbia; the St. Lawrence, which discharges the waters of the great lakes and their affluents; the St. John and St. Croix, between the United States and the British province of New Brunswick; and the St. John's in Florida.

Most of the lakes are situated in the northern portion of the republic. Five of them are the largest sheets of fresh water on the globe, excepting, maybe, the newly discovered and as yet imperfectly known lakes of the interior of Africa. Four out of the five, namely, the Superior, Huron, Erie, and Ontario, lie partly in the United States and partly in the British North American possessions; and the fifth, Lake Michigan, lies wholly within the United States. The Superior is the uppermost of the five, and the largest known body of fresh water on the earth. Its greatest length from east to west is 360 miles; its greatest breadth across its central portion, 140 miles; its area 32,000 square miles; length of its coasts about 1,500 miles; mean depth about 1,000 feet; and the level of its surface is about 630 feet above that of the sea. Numerous rivers flow into Lake Superior, but none of large size.

Lake Huron receives at its northern extremity the waters of Lake Superior discharged by the river St. Mary's, also those of Lake Michigan through the strait of Mackinaw. The outlet at the south end is the river St. Clair. The length of the Huron is about 250 miles; width, about 190 miles; area, about 21,000 square miles; elevation above the sea-level, some 578 feet; the depth is variously stated at 300 to 1,000 feet. It is said that soundings have been made of 1,800 feet without finding bottom. The commerce of this lake and its fisheries are very extensive. Lake Erie is the most southern of the five great lakes, and the lowest of the chain, excepting the Ontario, which lies below it to the north-east. Its mean length is about 240 miles; mean breadth, 40 miles; circumference, 660 miles; elevation above the sea level, 565 feet; area, 9,600 square miles. Its western extremity receives from the north the waters of the upper lakes, discharged by the Detroit river. At this extremity there is a cluster of well-wooded, fertile islands. The shores of the Erie are noted for their shallowness, their depth, except near its lower end, rarely exceeding 120 feet. It is usually closed by ice early in December, and continues more or less frozen over till March or April. In the season of navigation the transportation carried on is immense, and the commerce is of enormous value. The Erie is connected with the Ontario by the Welland canal. On the 10th of September, 1813, a naval battle was fought on the Erie between an American and an English squadron.

Lake Ontario, the lowest and smallest of the chain, extends from east to west about 180 miles, with a mean breadth of 35 miles, and an average depth of

about 500 feet. The elevation of its surface above tide is 231 feet; its bottom is about as far below the level of the ocean as its surface is above it. The area of the lake is estimated at 6,300 square miles. Its main feeder is the Niagara river, and there are many other streams flowing into it. Lake Michigan has a length of 320 miles; mean breadth, 70 miles; mean depth, 1,000 feet; elevation above the sea-level, 578 feet; area, 22,400 square miles. It is believed that the waters of this lake at one time found their way by the Mississippi valley into the gulf of Mexico. The city of Chicago is situated near the head of Lake Michigan. Milwaukee is on the west side. Another of the important lakes is the Champlain, lying between the states of New York and Vermont. It is 126 miles long, and varies in breadth from 40 rods to 15 miles. Its greatest unobstructed breadth is 10 miles. The depth varies from 54 to 282 feet, and the largest vessels can navigate its whole extent. The outlet of this lake is the Sorel or Richelieu river, also called St. John's, which empties into the St. Lawrence, and with the Chambly canal affords a passage for vessels of large size to the ocean. Navigation is usually closed by ice from November to April. A naval battle was fought on Lake Champlain in 1814, between an American squadron of 14 vessels of all classes, with 86 guns and about 800 men, and a British squadron of 16 vessels with 95 guns and 1,000 men. There are several other lakes entitled to notice, to wit: The George in New York, Moosehead in Maine, Winnipiseogee in New Hampshire, and Memphremagog, lying partly in Vermont and partly in Canada. The whole of New England is dotted with sheets of water called ponds, which for their size and beauty would be called lakes in Europe. The central and western parts of New York contain several large lakes, among which the most noted are the Otsego, Oneida, Skaneateles, Cayuga, Seneca, Keuka (formerly Crooked), and Chautauqua. In the southern states four lakes are found: in Florida is the O'Keechobee; in Louisiana are several lakes which have been formed by the expansion of numerous rivers. In the north-west, lakes are numerous in Michigan, Wisconsin and Minnesota; those in the last named state forming by their great number and size one of its most remarkable geographical features. On the Pacific slope the most noted is the Great Salt Lake. In the Great Basin, in Utah and Nevada, are many other lakes or sloughs, most of which are like this one, salt. Lake Tahoe in California, 6,247 feet above the sea, is 22 miles long, 10 miles wide, and 1,700 feet deep. It is navigated by steam vessels, and when a boat leaves the shore for a trip round the lake it appears almost as if suspended in the air.

The chain lakes, Superior, Huron, Erie, Ontario, and Michigan, are connected with one another, and the waters outflowing from the Ontario form the river St. Lawrence. In order to avoid the many rapids and falls, canals have been constructed, the whole water-way being designated as the St. Lawrence system, and connecting the St. Lawrence river at Montreal in the British North American possessions with the inland region, about 1,400 miles away, by means of the aforesaid lakes and 10 intermediate canals. There is, consequently, uninterrupted water communication between Chicago, Duluth, and other places on the lakes; Detroit, Toledo, Buffalo and other centres, and the open sea below Quebec in Canada. The fall from Lake Superior to the tideway is 565 feet. The whole course, with proposed improvements, will be available for steamers of 14 feet draft. The Ottawa river and St. Lawrence are joined by the Rideau canal, with 9 feet depth. That canal is intercepted at Maitland rapids by the Maitland canal, and opens up connection between Montreal and Ottawa city. Other important canals are the Chambly, St. Peters, which has a depth of 18 feet, the Grand or Erie, which has also a branch between Lyons and Rome to Oswego on lake Ontario. Thus are the St. Lawrence river, all the lakes, the Hudson river, and New York city brought into direct water communication. The Ohio canal connects lake Erie at Cleveland with the Ohio river at Portsmouth, running part of the way alongside the Scioto river. The link is thereby made complete between New York and all the north-east, the Mississippi, the whole country up the Missouri, and down these rivers to New Orleans. Among minor connections are the Cincinnati and Dayton canal, and the Pittsburg and Washington canal alongside the river, a great business water-course. Philadelphia connects with the river Susquehanna at Harrisburg, by a canal which is continued to Berwick and Athens. This water-course has a branch from Reading to Lewisport. The Philadelphia river has a canal from Trenton to Easton, where it joins the New York canal. New Haven and the Connecticut river are linked by a canal which enters the river near Charlestown. In the southern states the Santee canal joins the port of Charleston with the river Congaree.

The great problem of constructing ship-canals across the two

narrowest isthmuses of America, namely, Panamá and Nicaragua, will soon be solved. A company is engaged in making a thorough survey of the interoceanic region in Nicaragua, in order to locate a canal that will at the same time render available the fine natural water courses of the country. As to the isthmus of Panamá, a French company under the direction of Monsieur de Lesseps, of Suez canal fame, has been for some years constructing a canal from Colon to some place in the vicinity of the city of Panamá.

A franchise was granted by the Colombian government, on the 18th of May, 1878, to the Civil International Interoceanic (which subsequently assumed the title of Compagnie Universal du Canal Interocéanique de Panama) for 99 years, to construct such a canal. The section of the Panamá isthmus from Colon to Panamá having been selected, the charter declared the neutrality of the canal, as well as the terminal points. Under the contract the Colombian government is to be paid at certain periods from 6 to 8 per cent. of the net receipts, but its share is never to be less than $250,000 a year. The work has been prosecuted since October, 1881, but not completed in the time contemplated. The original capital stock, and much more, having been exhausted, the problem yet to be solved is whether the company can obtain the funds to carry on the work to completion. A large portion of the excavation is done. On January 1, 1888, the total excavation of the canal and the deviations amounted to almost 40,000,000 cubic meters, and 23,000,000 more remained to be done. The company expected, by adding a great force of dredges to the number then at work, to excavate 15,000,000 cubic meters in 1888, at the rate of 1,500,000 per month. Monsieur de Lesseps and the friends of the enterprise are sanguine of completing the great water-way, and opening it to traffic within a reasonable time; say in 1890. The total length will be about 46 miles. The amount of capital paid in to June 30, 1886, was $154,522,706; and it is quite possible that as much more will be needed.

The great canals of the world are: the Imperial canal of China, over 1,000 miles long; the Languedoc or Midi, connecting the Atlantic with the Mediterranean, 148 miles; the great North Holland, 125 feet at the water surface, 31 feet wide at the bottom, from Amsterdam to the Helder, 61 miles; the Caledonia in Scotland, 60 miles; the Suez, 88 miles, of which 66 miles are actual canal. In the United States, the Erie, 350½ miles; the Ohio, Cleveland to Portsmouth, 332 miles; the Miami and Erie, Cincinnati to Toledo, 291 miles; the Wabash and Erie, Evansville to the Ohio line, 374 miles.

The river Belize in British Honduras is said to be navigable for nearly 290 miles inland.

Guiana is drained by several large rivers, most of which are navigable for some distance from their mouths. They are the Essequibo, Berbice, Demerara, Corentyn, Saramaca, Surinam, and Maroni.

The Essequibo and Berbice, in the western or British portion, are navigable by large vessels for 50 miles from the sea. The Corentyn separates the British from the Dutch possessions. In Dutch Guiana are the Saramaca and Surinam, both streams being of considerable size and importance. The Maroni separates the Dutch possessions from the French. The Demerara, which is comparatively small, is navigable for 100 miles up. All these rivers generally have a northern course, and receive the waters of numerous and extensive tributaries. The Essequibo has for affluents the Cuyuni and Masaruni, (both not inferior to itself in size), the Rupununi, Potaro, etc. The Kaistur waterfall is formed by the waters of the Potaro as they dash in a single leap from the basin of that river into the Essequibo valley, a depth of 822 feet. The width of the river at the edge of the falls is 369 feet, and the depth of the water near the edge is 15 feet in the dry season. Several smaller rivers run into the Atlantic at various points. None of the British, French, Danish, or Dutch West India islands possess navigable internal waters worth mentioning.

Till recent years internal locomotion in Mexico was subject to difficulties. It was confined to bridle-paths from the central mesa over the sierras and terrace-lands down to a few points on both slopes, and to a number of regular lines of stages under one con-

trol. But since the completion, by a combined company of Mexicans and Englishmen, of the railway line from Vera Cruz to the city of Mexico, with a branch to the city of Puebla, the Mexican railway system has become greatly developed. The country is now pretty well intersected by railways, and after all the lines now in the course of construction, or in contemplation, shall have been completed, it will possess a network of railroads that must materially promote its wealth.

In 1879 there were only 372 miles of railway. From 1880 to 1884 the construction of new lines may be said to have been rather too rapid. In 1883 the number of miles existing was a little over 2,800. Early in 1886 there were in operation the following lines, to wit:

Mexico to Paso del Norte	1971	Kilometres.
San Luis Potosi to Tampico	115	"
Mexico to San Miguel de Allende	409	"
Nuevo Laredo to Saltillo	379	"
Matamoros to Monterey	75	"
Acámbaro to Morelia	92	"
Manzanillo to Colima	46	"
Zacatecas to San Luis	6	"
Mexico to Salto	67	"
Piedras Negras to Venadito	470	"
Mexico to Vera Cruz	424	"
Apizaco to Puebla	47	"
Guaimas to Nogales	426	"
Mexico to Yautepec	161	"
Mexico to La Luz	133	"
San Lorenzo to Calpulálpam	9	"
Jalapa to Vera Cruz	114	"
Jalapa to Coatepec	6	"
Orizaba to Ingenio	5	"
Irola to Pachuca	59	"
Puebla to San Juan	93	"
Esperanza to Tehuacán	50	"
San Andrés to Chalchicomula	10	"
Santa Ana to Tlaxcala	8	"
Vera Cruz to Alvarado	71	"
Yucatán	126	"
Tehuantepec	76	"
Puebla to Matamoros	44	"
Puebla to San Martin	37	"
Toloyuca to San Agustin	27	"
San Márcos to Nautla	25	"
Chalco to Tlalmanalco	18	"
Tepa to Tulancingo	10	"
San Luis Potosi to Soledad	6	"
Campeche to Cal Kini	7	"
Culiacán to Altata	62	"
Vera Cruz to Jalapa	25	"
Length of tramways in cities	250	"
Total	5,959	"

In 1887 there were open for traffic 3,870 miles besides 92 miles of city or suburan lines, altogether 3,962 miles. According to President Diaz' last message, the construction of the International road being completed, the frontier town of Piedras Negras was united with the Central railway at the hacienda of Torreón, and the road was opened to traffic, thus starting a new line for the northern frontier. The Central R. R. Company has continued construction on the several lines from Tampico to San Luis Potosi, from Potosi to Aguascallentes, and from Irapuato to Guadalajara. A line of 180 kilometers having been finished on that branch, as far as Ocotlan, it was opened to traffic. Guadalajara will soon be linked by railway with the national capital. The national company began reconstruction, in October and November, 1887, at both extremes of the line; which is to unite Saltillo with San Miguel Allende. The Central Rail-

way branch service to Guadalajara opened to the public for freight and passengers on the 21st of May, 1888. The track-layers on the north end of the National railway were laying 1½ miles of track weekly. The Mexican National Railway officials expected to have a new iron bridge across the Rio Grande river by August 14th. The roads constructed at the date of the president's message, measured 6,800 kilometers. The earnings of the Central were $1,580,618 in 1885 against $1,332,764 in 1884

The republics of Central America are well provided with roads and bridges, but it cannot be said that all are kept in as good order as they should be. They have in late years endeavored to establish railways in their respective territories, and their efforts, excepting in Honduras, have to some extent been successful.

The national highways of Costa Rica, owing to the destructive action of the winter rains, are often in a dilapidated condition. It is due to the government, however, to say that it endeavors to improve them. In Nicaragua, the public roads are fit only for mule travel, except at short distances from the chief towns, which wagons can traverse. In the rainy season they are almost impassable. The same is to be said in regard to those of Honduras. Much has been done, however, in recent years toward improving the roads, and constructing bridges. Salvador has been for some years past macadamizing her highways. Guatemala is well provided with roads and bridges, and derives a revenue from tolls, which is expended in repairs, and in constructing new roads and bridges. The first line of railway built in Guatemala, that from San José to the capital, via Escuintla (69 miles), went into operation in September 1884. Another line, from Champerico to Retalhuleu (30 miles) was opened in December 1883. A new line, from the port of Santo Tomás to Gualhos, was begun in September 1884. During the administration of President J. Rufino Barrios, measures were adopted to connect by railway the capital with the Caribbean sea, intending at the same time to build a line from Coban to the Polochic river. Barrios' untimely death put a stop to such projects, at least for a time; but there is hardly a doubt that they will eventually be carried out. The city of Guatemala possesses a tramway line. Honduras has a short narrow-gauge railroad.

It had been contemplated to construct a line 232 miles long between Puerto Cortés or Caballos on the Atlantic, and Amapala in the bay of Fonseca, but financial difficulties caused the abandonment of the plan in 1873 after only 37 miles had been built, from the Atlantic port to San Pedro Sula. Since then, internal troubles and lack of resources have prevented its resumption. In March 1888, President Bogran signed a contract with a London firm for the construction of a railway from Puerto Cortés to a point on the bay of Fonseca. Salvador has a railroad from Acajutla to Santa Ana. The day is not distant when this republic will be placed in communication with the Atlantic through the territory of her neighbors. In Nicaragua there were in operation in 1886 the following lines:

From Corinto to Chinandega	20	Kilometres.
" Chinandega to Moabita, via Leon Viejo	72	"
" Managua to Granada, via Masaya	52	"

The cost of the lines is nearly $3,000,000. There is a connection by railway with the steamship line on Lake Nicaragua. There are three lines, or rather sections, of railroad in Costa Rica; the Central, running between San José, the capital, and the interior provinces, via Cartago, Heredia, Alajuela, Tres Rios and San Joaquin; the Atlantic, from Limón to the interior, which is the route through which most of the country's foreign trade is conducted; and the Pacific, from Puntarenas to Esparta. At the end of 1885 the following portions of the railway system were in operation:

From Alajuela to San José	22	Kilometres
" Puntarenas to Esparta	22	"
" San José to Cartago	22	"
" Limón to Rio Sucio	113	"
Total	179	"

Number of passengers conveyed, 158,838; freight transported, 7,072 tons. The cost of the three sections has been estimated at $12,239,296; but in 1888 they were valued at only $6,600,000.

Colombia has been for several years deprived of the facilities of railway communications, except by the short line from Colon to Panamá, and another one, much shorter, in the department of Bolívar. But more recently the construction of other lines has been assiduously carried on.

The subjoined table contains the railway statistics of the republic in 1887; the first figures showing the length of lines, when finished, in English miles; the second, the portion in actual operation, in English miles:

	Projected.	In Operat.
Panamá railway, Colón to Panamá	47	47
Bolivar railway, Barranquilla to Pto Belillo	20	20
Cúcuta railway, Cúcuta to Pto Villamizar	34	34
La Dorada railway, Conejo to Honda or Arranca Plumas	22	14
Girardot railway, Girardot to Bogotá	96	20
Antioquia railway, Pto Berrio to Medellin	125	30
Cauca railway, Buenaventura to Cali	75	12
Santa Marta railway, Santa Marta to Ciénega	21	21
Santander railway, Pto Wilches to Bucaranlaiga	75	3
Sabana railway, Facatatixa to Bogotá	24	0

An additional 171 miles would soon be open to traffic. The La Dorada, Girardot, and Cauca railways were being carried forward with every prospect of success, but the work on the Antioquia had stopped for want of means. A contract was, however, made by the government for the continuation and completion of the road. The capital needed for the purpose was estimated at $6,000,000, of which the department of Antioquia would furnish $800,000, which will give it the ownership of one-sixth of all the shares. The franchise is for 30 years, and after the road has been worked for 55 years, it will become the property of the government of Antioquia. The tariff of charges was limited in the contract as follows: $5 for 100 kilograms of imported goods, $4 for exported, $2.50 for every other kind of articles; and $8, $6, and $2.50 for passengers of the first, second, and third class respectively. The Honda section avoids the falls of the Magdalena river, and the value of its services is incalculable. The link line which has been run along the east bank of the Magdalena renders important aid as a means of communication between the upper and lower Magdalena. The Colombian guard (regular troops) have energetically forwarded the work, their sappers proving themselves the best road-makers in the country. Nearly 600 of the men have worked on the Girardot and Cauca roads.

Between 1852 and 1866, 517,852 passengers, gold and silver valued at $849,157,076, paper money at $19,062,567, and jewelry at $513,001, were conveyed on the Panamá railway, and between 1855 and 1866, 614,535 tons of merchandise, mail matter, baggage and coal, the mail matter averaging 380 tons a year. In 1867 there were 35,076 passengers, and the value of merchandise and treasure was $92,191,980; in 1872 13,952 passengers and 97,000 tons of merchandise; in 1878–9, 314,220 tons; in 1880–4, 1,053,596 tons, aud 1,024,128 passengers, the increase being due to the operations of the interoceanic canal company, and the transport of their vast material.

The gross earnings of the railway in 1885 were	$3,267,922
Operating expenses	2,655,272
Net earnings	$612,650
Interest	541,041
Balance	$71,609

The statement of December 31, 1884, showed a surplus of $1,076,557, out of which a 10 per cent. dividend was paid, amounting to $700,000; balance left on hand, December, 1885, $448,166. The annual report for 1887 declared the road to be in excellent condition; the gross earnings for the year $3,489,482, and the expenditures, including interest, $2,869,751. The railway has been for some years the property of the Panamá Canal company.

The republic of Venezuela has of late years provided good public roads, and has also constructed a number of railways, which have aided to increase her foreign trade very considerably, as well as developed her intercourse with other nations.

In 1875 over $1,500,000 were expended on roads, of which about 1,000 miles had been completed. Five or six years previously, there were but two roads in the entire republic, namely, from La Guaira to Carácas, and from Valencia to Puerto Cabello. In 1876, there were no railroads, though one was projected between Carácas and La Guaira. Since then a few railways have been built. The railway system in 1887 comprised the Bolivar, from Port Tucacas to the copper mines of Arvá, in the state of Lara, about 70 miles long, and the La Guaira and Carácas, nearly 2⅃ miles long; an important one is that from Puerto Cabello to Valencia, about 35 miles long. Two short lines connect Carácas with the small adjacent towns of Petare and El Valle. Franchises were granted to European capitalists for the construction of other lines, starting respectively from Puerto Cabello, Maracaibo, Mérida, Orinoco river, and Encontrados, to connect them with important districts.

The public roads of Ecuador are of the most primitive kind, most of them being mere mule tracks, which are impassable during a great portion of the year. The transportation of merchandise is usually performed on mule-back, wheeled vehicles being almost unknown. But of late efforts have been made, successful in a measure, to supply the country with railways.

In 1887, there was one railroad between Yuaguachi, distant three hours by steamer from Guayaquil, and Puente de Chimbo, about 76 miles. In December of that year, the line was being prolonged to Sibambe, 50 miles farther, and also from Yuaguachi to the Guayaquil river. Another line was contracted for between Puerto Bolivar and Machala.

The empire of Brazil possesses numerous railway lines connecting the principal centres of agriculture and traffic. In 1887, there was a total length of 4,955 English miles, besides about 1,000 more in the course of construction, and 2,200 projected.

In 1876, the aggregate roadway was only 1,143 miles. In 1882, there were in operation 2,517 miles. At the close of 1884 there were 5,657 kilometres in operation, 2,412 in construction, 3,839 projected. Early in 1886 there were 7,062.175 kilometres in operation, 2,267.628 kilometres building, total 9,329.803 kilometres. All the lines were of one-metre gauge, except 125 kilometres of 1.10 metres. In Pernambuco were built the first railways of any great extent in South America. In 1882, there were 2,577 miles in operation in the empire, and 1,780 in course of construction. The following were the chief lines: Dom Pedro Segundo, 226; São Paulo, 86; Bahia, 75; Pernambuco, 76; Cantagallo, 21; Mahuá, 15. The section of Dom Pedro Segundo connecting the eastern and western provinces has 426 miles open, and 62 under construction. A line was started from Pernambuco and one still more extensive was in 1885-6 in course of construction along the São Francisco river on the north shore to Bavista, there to meet a projected line on the south bank in a direct course to Bahia. The total milcage of railways in Brazil, in 1885-6, was given at 4,380 miles. In the province of Rio Janeiro there were a few branch lines, and one main line into São Paulo, the total length being 830 miles; but it joins Rio and Santos, and opens up a rich country, developing an immense trade in Santos. Other lines were being quickly pushed forward.

The state owns nine lines with 1,073 miles already in operation; the principal one being the Dom Pedro II, which cost about 43,000,000 milreis. The nine lines have cost 118,800,000 milreis, and in 1885 they yielded 3⅘ per cent. net. A syndicate consisting of Canadian capitalists controlling $100,000,000 was formed in 1888 to undertake railway works in Brazil. The terms offered by the Brazilian government were deemed very acceptable, in the form of large franchises, subsidies, and contracts of enormous value. The syndicate's first undertaking would be to establish transportation from Pará, 100 miles from the southern mouth of the Amazon by the Tocantins, Araguaza, and Vermelho rivers to Goyaz. The Tocantins is navigable for 250 miles from Pará, and then is obstructed by rapids for 70 miles. A line of railroad is to be built around these rapids, and more than 2,500 miles of navigation will be established on the upper Tocantins.

Two engineers connected with the Canadian Pacific railway went to Brazil to make superficial surveys and report on a series of railways connecting the head-waters of the Amazon and Pará rivers.

The La Plata region presents a striking example of rapid progress in industry and trade resulting from the application of engineering enterprise to means of communication. A railway system, the most perfect in South America, supplements the great water-ways of the Paraná, Paraguay, and Uruguay with their tributaries. The consequence is that this region, without the natural and spontaneous productions of the northern districts, is fast eclipsing the northern portions in trade, whereas in former times it was the reverse.

From Buenos Aires there are already several lines in operation, running into the country for several miles in all directions.

From Montevideo a line runs 110 miles into the interior of the Uruguayan republic; another line is in course of construction to Colonia, opposite Buenos Aires, and to the Uruguay river. Here it will meet the steamers running up the river to Rosario, whence there is a line running across the continent to the mountains in more than one direction, whose termini will be at Mendoza, San Juan, and Tinogasta, close to Copiapó on the west coast. This line passes the Villa de las Mercedes on one side, and Tucuman in the north, on the other.

Many of the important mines of Perú and Chili being in the Andes, railway facilities from their vicinity on the east side of the cordillera will give impulse to the trade of the Plata, practically cutting out the "West Coast," because it will save the time and risk of a voyage round Cape Horn.

The history of Argentine railways contains some interesting features. The first line built was probably that from Rosario to Córdoba, commenced in 1863, and finished in 1870. In 1873 the government finished the first section of the Transandine railway, 82 miles, from Villa Mercedes to Rio Cuarto. In 1875 the second section from Rio Cuarto, 76 miles, was in operation. In 1880 were completed 59 miles to the city of San Luis. In 1883, 75 more were finished, and La Paz became the terminus for the time being. In April, 1885, 80 miles were opened from La Paz to Mendoza; a branch of 100 miles from Mendoza to San Juan was opened at the same time. The total cost to the government, thus far, of the 472 miles, had been $13,000,000. From Mendoza to the Chilian boundary, through the Uspallata Valley, is 140 miles; the road runs at nearly double the elevation of the Central Pacific line across the Rocky mountains. The Northern Central Argentine at Córdoba, connecting with the Central, and extending northward to Salta, is a narrow-gauge road of 340 miles and was continued through the province of Jujuy.

In 1885 three railways were opened for traffic, the Mercedes, Andine East Argentine, and Campana lines. The Tucuman line was to be completed in 1876, when there would be in all ten railroads with a total of 2,260 kilometres or 1404 miles in operation. The Andine line was leased to a private person for four years with the condition that he should receive 80 per cent. of the gross receipts for the first three years, and 75 per cent. for the last year. The Central Argentine, which opened in 1870, earned in 1875 a surplus of £161,000 in addition to the guaranteed interest of 7 per cent. on the capital stock. That surplus was paid over to the government.

Lines of Railways, December 31st, 1886.

	In operation.	*Building.*
Central Argentine—Rosario to Córdoba	396 kilos.	
Northern Central—Córdoba to Tucumán	546	
" Tucumán to Jujuy		340 kilos.
" Branch from Frias to Santiago		162
" " " Recreo to Chumbicha		300
This line to be extended from Chumbicha south-west to La Rioja, and north-east to Catamarca.		
Andine—Villa María to La Paz	470	
" La Paz to San Juan via Mendoza		255
Western—Buenos Aires to Bragado & branches to Pergamino and Lobos		515
" Extension		386
Southern—Buenos Aires to Altamirano & branches to Olavarría & Tandil		679
" Olavarría to Bahía Blanca		386
Northern—Buenos Aires to El Tigre	35	
Ensenada— " " Ensenada	58	
Campana— " " Campana	81	
Eastern—Concordia to Ceibo	160	
Puerto Ruiz and Gualeguay	10	
Rosario to Candelaria	60	
Transandine—Mercedes (in Buenos Aires) to Mercedes (in San Luis)		578
This line places Buenos Aires in connection by rail with Santiago, in Chili, and thus with the coasts of the two oceans.		
Santa Fé—Colonial		100

In 1886 there were in operation 6,152 kilometres, of which 1,877 were national, 1,194 provincial, and 3,160 private property. There were consequently added to the 2,318 kilometres existing in 1880, during the last five years, 3,834 kilometres. The total cost of the lines existing in 1885 was about $100,000,000, or an average of about $33,330 per mile.

The gross earnings of all the railroads in 1885 were $16,150,894; the net earnings were $6,489,701; the percentage of net earnings being 7.52 against 5 in the United States, and 4½ in England, and 4¼ in Germany and France. In 1887 the length of lines open for traffic was 4,216 miles, connecting the principal towns of the republic with the capital. There were, moreover, 1,000 in course of construction.

There were in the city of Buenos Aires at the end of 1882, 95 miles of tramways, or horse-car lines, with 1,001 employés, carrying an average of 51,740 passengers daily. There were lines also in some of the smaller towns of the province of Buenos Aires. Córdoba City had two lines, and Rosario one.

The Oriental Republic, or Uruguay, is also possessed of the facilities of transportation by rail. Her lines constitute two systems, to wit: the Central of Uruguay, and the Alto Uruguay.

In 1879, 82 miles of the Central were completed, with a branch line to the port of Higueritas on the Uruguay river, opened in February 1876. Of the Alto Uruguay system the chief lines were, one from Salto Oriental to Santa Rosa, 113 miles, and another from Montevideo to Pando, 29 miles. The number of completed lines in 1887 were about 338 English miles. As early as 1875 Montevideo had six lines of tramways.

Paraguay possesses only one short line of railway. In 1887 a franchise was granted for extending that line, which runs from Asunción to Paraguari, through the southern part of the republic to the Paraná river, and another toward the frontier of Bolivia.

The Asunción-Paraguari line is about 45 miles long. The total traffic over it in 1886 amounted to $126,815.

Bolivia has poor roads, and has been backward in developing a system of railway transportation to any great extent. However, her government is awake to the usefulness of such facilities and in recent years has endeavored to encourage the construction of railroads.

There was a line connecting the city of La Paz with the port of Aygacha on Lake Titicaca, opened in 1872. Another line from Antofagasta to Salar was completed in 1874. There were other lines already being built in 1879, which could not be completed because of the war with Chili. In 1886 a roadway was in the course of construction to connect the Argentine frontier, near the town of Quiaca, with the Bolivian city of Potosí, running along the right bank of the Paraná river to the port of Barranquera. Chili was also rapidly building a railroad from Antofagasta into the interior, which in 1886 had reached beyond Calama as far as Afil, and was nearing La Poruña, opposite Santa Bárbara. Trains were arriving within two miles of the Loa river, where an iron and a wooden bridge were to be built. Number of miles of railway in operation in 1888 about 81.

With the view to developing the resources of the country, the government of Peru began, in 1852, the construction of a system of railways. The result has been the connection of the coast towns and valleys with their ports. In 1886 the total working length of the Peruvian railways was set down at 1625 miles. The government, in establishing these lines, did not expect to derive any revenue from them. Speaking of the longest line which was built for the state—that from Mollendo to Arequipa, Puno, and Santa Rosa, crossing the summit of the Andes at Vincocaya at a height of 15,000 feet above the sea-level—the British minister at Lima reported in 1878: "232 miles of difficult railway have been made at an expense of about £6,000,000 in order that three or four goods trains may run per week."

In 1878 there were 22 lines, eleven or twelve of them belonging to the state, with a length of upwards of 1280 miles when completed, and they cost 128,364,600 soles; eight were the property of several companies, with 496 miles, and a cost of 24,420,000 soles; and two others were owned jointly by the government and private persons, with 253 miles costing 27,200,000 soles. Total length 2,030 miles representing an expenditure of 179,974,600 soles. The lines referred to run as follows: Paita to Piura, 62 miles; Pimentel to Chiclayo and Lambayeque, 45 miles; Eten to Terrenape, 53 miles; Pacasmayo to Magdalena, 93 miles; Malabrigo to Ascope and the Chicama valley, 25 miles; Salaverry to Trujillo, 55 miles; Chimbote to Huaraz, 172 miles, only a part completed. Several short lines radiate from Lima. Pisco to Ica, 48 miles; Mollendo to Arequipa, 107 miles; Ilo to Moquegua, 63 miles; Arica to Tacna, 63 miles. There are railway lines connecting the nitrate works with Pisagua, Iquique and Patillos. A short line at Cerro Pasco connects the mines with the town. There is a road from Lima and Callao to Oroya, 136 miles, having 63 tunnels, and a bridge which spans a chasm of 580 feet in width. The work was completed in 1884 as far as Chicla, some 87 miles. Another railway across the Andes connects Arequipa with Puno on Lake Titicaca. This line is 232 miles long, and is intended to be prolonged to Cuzco. The Oroya line cost $22,481,811. The Arequipa and Puno line $21,624,763. It is said that the only private lines which have proved a commercial success, are the double line from Lima to Callao, 8 miles, the line from Lima to Chorrillos, 9 miles, and the Eten, Lambayeque, and Chiclayo, 27 miles. The construction of railways in 1887 was progressing slowly. The lines from Mollendo to Arequipa, Puno, and Lampa on the Titicaca lake, and thence to Cuzco, open up the navigation of the lake to its southern shore at Peñas, where there is a fresh line to La Paz, only 40 miles off, continued by way of Oruro and Lake Aullagas, Huanchaca to Antofagasta and Mejillones; with a total length of about 700 miles, opening up a large, fruitful country.

Chili possesses about 2,300 highways which are kept in good con-

dition. This republic has been one of the first countries in South America to introduce railways. Inasmuch as the mountains are within an average of less than 100 miles from the coast, the railroads in no case cross the chain. Several cities and towns have street railroads.

The national government provides for the repairs of seven hundred of the highways, having a total length of 10,000 kilometres. The municipalities and private parties attend to the other 1,600 roads, whose aggregate length is 40,000 kilometres.

The following railroads were either completed, or in the course of construction on the first of January, 1885:

Government Lines.

	Kilometres.
Santiago to Valparaiso	186
Santa Rosa Branch	45
Santiago to Palmilla	304
Maule to Talcahuano	413
Total	948

Total cost of the government's railways in 1884, £42,107,934. Gross earnings in that year, £6,000,000; expenses, £3,141,295; net earnings, $2,858,705; passengers conveyed, 2,515,077; merchandise, 10,693,735 metrical cwts.

Private Lines.

	Kilometres.
Arica to Tacna	68
Pisagua to Tres Marias	106
Iquique to Tres Marias	194
Patillos to Salitreras del Sur	93
Mejillones to Cerro Gordo	22
Antofagasta to Salinas del Dorado	128
Taltal to Refresco	82
Chañaral to Salado	60
Caldera to Copiapó	242
Carrizal Bajo to Carrizal Alto,	36
Coquimbo to Serena	15
Coquimbo to Ovalle	123
Serena to Vicuña	60
Tongy to Tamaya	55
Laraquete to Moquegua	40
Total	1326

Lines in course of construction, 1,149 kilometres.

The lines below Iquique in 1886 are given as follows: Caldera to Copiapó and branching to Puquios, on the one hand, San Antonio and Juan Godoy on the other, being respectively 90, 82, and 80 miles. Chañaral to Salado, 35 miles. A central line from Valparaiso to San Felice and Los Andes, 85 miles; and Talcahuano, through Santiago, San Fernando—with branch toward the coast of 20 miles to Palmillas—Curicó, Linares, Chillán, and Concepción, about 380 miles and extended 60 miles farther to Los Angeles. Total railway mileage in 1886, 1,420 miles. In 1887, there were 1,592 miles in operation, whereof 600 belonged to the national government. Santiago had in 1885, 56 kilometres of tramways, and Valparaiso 10. This facility of transportation existed also in Concepción, Chillán, Limache, Rengo, Quillata, and Talca.

The republic of Santo Domingo is almost entirely without roads; but in 1887 it had nearly completed one railway and had another one in contemplation.

The railroad nearly finished is one between Samaná and Santiago, embracing the rich provinces of the north. The line intended to be built is between Barahona and the salt mountain called Cerro de Sal.

The island of Cuba has a fine main road extending from the capital in the north-west to Santiago de Cuba in the south-east, and other highways, which are usually kept in as good repair as circumstances will allow of, considering that they are subject to the damaging effects of heavy tropical rains. Railway enterprise has been active in Cuba.

There is a line through the island from Habana east and west, which touches the coast at Matanzas, Cárdenas, Sagua la Grande, on the north, and Cienfuegos, on the south; the central line runs down the island in the middle to the level of Cienfuegos. The rest of Cuba, except for short lines, is devoid of railways; but the distance to one of the railroad lines, or to the coast, is so small, that from any given place it is easy to get produce to the sea-coast. The island has about 1,000 miles of railway. In 1885, a loan of about $40,000,000 was contracted to complete the railways.

In the United States the railroad system has assumed enormous proportions. The general government has had no control over the construction of railways. The system has grown up under the requirements of the several regions where the roads were built. In nearly every instance the charters have been granted by the state governments for the roads existing within their own territory. Most of the through lines have been formed by the consolidation of several short sections of road into continuous lines under one management, or by the longer and richer lines leasing the shorter and poorer ones; and occasionally by agreement of connecting roads to coöperate with each other for their mutual convenience and benefit, in the arrangement of their trains. The consolidation of lines originated in the desire of the great sea-board cities to secure a larger share of the business of the interior and western states. The means for constructing the lines has been raised by private subscriptions, constituting the capital stock, supplemented by loans secured by mortgages on the property created. In several instances, cities, towns, counties, states, and even the national government subscribed to the capital stock, or lent their credit to the various companies. Examples of the national government having aided with its credit to carry out these vast improvements, are the Union Pacific and Central Pacific companies, who established railway connection between the eastern states of the republic, and the city of San Francisco, in California.

The first railroad built in the United States was the Quincy railroad in Massachusetts, constructed in 1825, the second was one built in 1827, and operated in Pennsylvania; but steam was used for the first time in 1830. After that, the business of constructing railways grew so rapidly between 1832 and 1837 that at the end of this period the completed lines exceeded in number and aggregate length those of any other country.

The system of street railways in towns had its origin in the United States, and there is hardly a city of any magnitude that does not possess one or more lines moved by horse power. But since the invention by A. S. Hallidie, of San Francisco, California, of the cable railways, their use has become quite general in said city, and they have been also adopted in other cities, such as New York and Chicago. Under this system the car is drawn by an endless wire rope moving continually under the surface of the street.

In 1881 there were 91,147 miles of railways.

Table Showing Mileage, Capital, Cost and Revenue of all the Railroads of the United States for 1883.

Total length of lines	120,552 miles.
(In another table the same manual gives 121,592 miles.)	
Length of lines operated	110,414 "
Capital stock	$3,708,060,583
Funded debt	3,455,040,888
Total investment	7,495,471,311
Cost of railroads and equipment	6,684,756,045
Gross earnings from passengers	$206,837,256
" " " freight	544,509,831
" " " all sources	807,112,780
Net earnings	291,587,688
Interest paid on bonds	171,414,258
Dividends paid on stock	101,579,088

In another table the figures are considerably different, as follows:

Capital and debt (stock and bonds)	$6,746,579,147
Gross earnings	823,772,924
Net "	298,3.7,285
Dividends paid	102,052,543

Summary Statistics of the United States Railways in Averages.

For each 100 miles operated there are 21.57 locomotives, 16.21 passenger cars, 5.38 baggage, mail and express cars, and 678 freight cars of all kinds.

The capital stock aggregates to each mile of completed road $307.59.

Bonded debt to each mile of completed road	$28,650.00
Total cost of construction of each mile	55,461.00
Gross earnings per mile of road in operation	2,702.00
Interest paid on bonds per mile of completed road	1,421.91
Dividends paid on stock per mile of completed road	842.60
Ratio of interest paid to total funded debt	4.67 per cent.
" " dividends to aggregate capital stock	2.73 " "
Average fare per mile	2.42 cents.
Average freight charge per ton	1.2 cents per mile.
Number of passengers transported in 1883	312,686,641.
Total freight transported on all the roads in 1883	400,453,439 tons.
Increase of mileage in 1883	6,753 miles
Number of miles existing in 1884	124,281.

Mileage, Capital, Cost, and Revenue of all the Railroads of the United States for 1886.

Total length of the lines	133,606 miles.
Length of lines operated	125,146 "
Capital stock	$3,999,508,508
Bonded debt	3,382,966,330
Unfunded debt	280,673,814
Cost of railroad and equipment	7,254,995,223

The railroads are comprised in the following groups of states: New England, Middle States, Central Northern, South Atlantic, Gulf and Mississippi Valley, South-western, North-western and Pacific.

The business has steadily increased from year to year from 1871 (no comprehensive table being attainable prior to that year), when the number of operated miles was only 44,613. The length of railways in the United States at the beginning of 1888 is set down at 145,606.

Receipts and Expenditures of the Railroads of the United States for 1886.

Receipts from passengers	$211,929,857
" " freight	550,859,054
Gross earnings	$822,191,949
Net earnings	297,311,615
Interest paid on bonds	$182,884,990
Dividend paid on stocks	80,094,138

The business of transportation by railway assumed larger proportions from year to year since 1871. In that year the capital and funded debt (stock and bonds) amounted to $2,664,627,645; the gross and net earnings being, respectively, $408,329,208 and $141,746,405; and the dividends paid, $56,456,681.

The average fares per mile in 1886	2.18 cents.
The average freight charge per ton	1.04 cents per mile.
Total number of passengers transported in 1886	382,284,972
Total freight transported on all the railroads in 1886, in tons	432,245,254
Total capital invested in railways in 1886	$8,073,573,394

Earnings, Expenses, Net Earnings and Mileage of 55 Railroads in the Year 1887

According to Bradstreet Journal of Trade, Etc., Feb. 25, 1888

ROADS	*Gross Earnings*	*Operating Expenses*	*Net Earnings*	*Mileage*
Granger				
Burlington, Cedar Rapids & Northern	$3,005,963	$2,225,906	$ 780,057	1,089
Chicago, Burlington & Quincy	27,576,078	16,097,913	11,478,165	4,036
Chicago, Milwaukee & St. Paul	25,866,124	15,826,694	10,039,430	5,568
Chicago & Northwestern	27,140,725	16,010,266	11,130,459	4,101
Minneapolis & St. Louis	1,491,388	1,063,241	428,147	351
Totals, 5 Roads	84,580,278	50,724,020	33,856,258	15,095
Trunk Line				
Lake Shore & Michigan Southern	18,675,464	10,991,627	7,684,197	1,340
Michigan Central	14,140,000	9,852,000	4,288,000	1,508
New York Central	36,257,969	23,417,261	12,840,708	1,441
New York, Chicago & St. Louis	4,792,352	3,508,388	1,283,964	523
Pennsylvania	55,671,804	37,087,576	18,584,728	2,352
Totals, 5 Roads	129,537,089	84,855,492	44,681,597	7,164
Coal				
Buffalo, Rochester & Pittsburgh	2,090,402	1,511,770	578,632	294
Delaware & Hudson	19,602,644	13,388,570	6,214,074	794
Delaware, Lackawanna & Western	39,845,856	30,694,000	9,151,856	888
New York, Susquehanna & Western	1,395,186	762,139	633,047	154
Northern Central	6,212,926	4,139,442	2,073,484	328
Philadelphia & Reading	33,431,660	17,012,225	16,419,435	1,568
Phila. & Reading Coal & Iron Co.	19,656,704	18,232,775	1,423,929	.....
Western New York & Pennsylvania	2,816,285	2,213,774	602,511	663
Totals, 8 Roads	125,051,663	87,954,695	37,096,968	4,699
Central Western				
Cincinnati, Ind., St. Louis & Chicago	2,695,752	1,672,938	1,022,814	297
Chicago, St. Louis & Pittsburgh	5,862,764	4,306,277	1,556,487	585
Chicago & West Michigan	1,414,022	1,064,629	349,393	413
Detroit, Lansing & Northern	1,147,159	696,114	451,045	268
Grand Rapids & Indiana	2,351,435	1,515,252	836,183	472
Ohio & Mississippi	4,128,365	2,691,924	1,436,441	616
Totals, 6 Roads	17,599,497	11,947,134	5,652,363	2,601
Eastern				
Baltimore & Potomac	1,447,232	908,277	538,955	92
Boston & Albany	9,133,926	5,901,268	3,232,658	387
Camden & Atlantic	678,644	540,080	138,564	77
New York & New England	4,454,314	2,977,172	1,477,142	379

1887—Continued

ROADS	Gross Earnings	Operating Expenses	Net Earnings	Mileage
Eastern—Continued				
Philadelphia & Erie	$4,086,930	$2,457,047	$1,579,883	288
Rome, Watertown & Ogdensburg	3,215,600	1,784,131	1,431,969	641
West Jersey	1,469,214	976,257	492,957	198
Totals, 7 roads	24,435,360	15,544,832	8,891,628	2,062
Pacific				
Canadian Pacific	11,606,412	8,102,294	3,504,118	4,476
Denver & Rio Grande	7,983,420	4,742,051	3,241,369	1,461
Northern Pacific	13,854,320	7,808,030	6,846,290	3,277
Oregon Improvement	4,167,709	3,001,461	1,116,248	.....
Oregon Railway & Navigation Co	5,376,258	2,974,705	2,428,553	752
Union Pacific	28,567,766	16,616,761	11,941,005	4,594
Totals, 6 roads	71,545,885	43,218,302	28,827,583	14,560
Southern				
Cinn., New Orleans & Texas Pacific	3,377,551	2,034,572	1,342,979	336
East Tennessee, Virginia & Georgia	5,289,579	3,631,795	1,657,784	1,098
Kentucky Central	1,067,468	612,116	455,352	258
Louisville & Nashville	16,044,473	9,792,916	6,251,557	1,678
Memphis & Charleston	1,740,550	1,297,878	442,672	330
Nashville, Chattanooga & St. Louis	3,055,917	1,694,703	1,361,214	627
Norfolk & Western	4,254,794	2,483,780	1,771,014	533
Shenandoah Valley	902,862	773,546	129,316	255
Totals, 8 roads	35,733,194	23,321,306	13,411,888	5,405
Southwestern				
Fort Worth & Denver City	719,068	416,240	302,828	276
Kansas City, Fort Scott & Gulf	2,732,204	1,661,171	1,071,033	389
Kansas City, Springfield & Memphis	2,038,965	1,347,736	691,229	282
St. Louis & San Francisco	6,216,000	2,665,000	3,551,000	1,190
Southern Pacific Company:				
Galveston, Har. & San Antonio	3,347,184	2,664,237	682,947	936
Louisiana & Western	843,784	423,958	414,836	112
Morgan, Louisiana & Texas	4,684,259	3,337,980	1,346,279	283
Texas & New Orleans	1,267,563	704,210	563,353	208
Totals, 8 roads	21,849,027	13,225,522	8,623,505	3,676
Mexican				
Mexican Central	4,886,579	2,717,453	2,169,126	1,236
Mexican National	1,798,915	1,654,188	144,727	865
Totals, 2 roads	6,685,494	4,321,641	2,363,853	2,101
Totals, 55 roads	517,018,097	334,112,444	182,905,653	57,363

Earnings, Expenses, Net Earnings and Mileage of 55 Railroads in the Year 1886

ROADS	*Gross Earnings*	*Operating Expenses*	*Net Earnings*	*Mileage*
Granger				
Burlington, Cedar Rapids & Northern	$2,933,309	$2,132,404	$ 800,905	1,006
Chicago, Burlington & Quincy	26,728,480	14,401,683	12,236,725	3,531
Chicago, Milwaukee & St. Paul	24,718,403	14,560,264	10,158,139	5,296
Chicago & Northwestern	25,848,548	14,824,788	11,024,060	4,101
Minneapolis & St. Louis	1,549,619	1,050,981	498,668	351
Totals, 5 Roads	81,278,587	46,560,070	34,718,517	14,287
Trunk Line				
Lake Shore & Michigan Southern	15,826,616	9,709,135	6,117,481	1,340
Michigan Central	12,250,000	8,350,000	3,900,000	1,506
New York Central	32,651,015	19,933,918	12,717,097	1,441
New York, Chicago & St. Louis	3,826,608	2,552,192	1,274,416	523
Pennsylvania	50,379,068	32,619,586	17,759,482	2,322
Totals, 5 Roads	114,933,307	73,164,831	41,768,476	7,134
Coal				
Buffalo, Rochester & Pittsburgh	1,851,918	1,000,692	851,226	294
Delaware & Hudson	16,013,867	11,422,854	4,591,013	794
Delaware, Lackawanna & Western	32,342,865	24,954,433	7,388,432	888
New York, Susquehanna & Western	1,129,441	637,662	491,779	154
Northern Central	5,474,617	3,542,668	1,931,949	323
Philadelphia & Reading	30,509,706	17,587,193	12,972,513	1,588
Phila. & Reading Coal & Iron Co.	15,843,679	16,936,811	*1,093,132	.....
Western New York & Pennsylvania	2,573,220	2,100,948	412,272	663
Totals, 8 Roads	105,239,577	78,198,241	27,046,336	4,699
Central Western				
Cincinnati, Ind., St. Louis & Chicago	2,601,562	1,579,419	1,022,143	297
Chicago, St. Louis & Pittsburgh	4,842,316	3,966,301	876,015	535
Chicago & West Michigan	1,395,977	1,025,497	370,480	413
Detroit, Lansing & Northern	1,226,536	727,819	498,717	268
Grand Rapids & Indiana	2,078,509	1,331,687	746,822	472
Ohio & Mississippi	3,827,831	2,677,724	1,150,107	616
Totals, 6 Roads	15,972,731	11,308,447	4,664,284	2,601
Eastern				
Baltimore & Potomac	1,345,873	812,857	513,016	92
Boston & Albany	8,358,727	5,444,629	2,914,098	387
Camden & Atlantic	599,090	469,315	129,775	77
New York & New England	4,176,950	2,675,238	1,500,712	379

1886—Continued

ROADS	Gross Earnings	Operating Expenses	Net Earnings	Mileage
Eastern—Continued				
Philadelphia & Erie	$3,708,485	$2,242,582	$1,465,953	288
Rome, Watertown & Ogdensburg	2,878,675	1,664,053	1,274,622	641
West Jersey	1,852,458	849,184	508,274	200
Totals, 7 roads	22,419,358	14,117,908	8,301,450	2,064
Pacific				
Canadian Pacific	10,082,162	6,378,317	3,708,845	4,337
Denver & Rio Grande	6,728,079	4,217,418	2,510,661	1,317
Northern Pacific	12,329,552	6,189,180	6,140,372	2,898
Oregon Improvement	2,999,488	2,259,257	740,226	.....
Oregon Railway & Navigation Co	5,345,162	3,000,242	2,264,920	742
Union Pacific	26,230,186	16,359,580	9,920,606	4,594
Totals, 6 roads	63,764,624	38,488,994	25,280,630	13,883
Southern				
Cinn., New Orleans & Texas Pacific	2,882,171	1,753,879	1,128,292	336
East Tennessee, Virginia & Georgia	4,243,372	2,689,448	1,553,924	1,096
Kentucky Central	920,697	588,373	332,324	253
Louisville & Nashville	13,978,546	8,456,431	5,522,116	2,023
Memphis & Charleston	1,444,638	996,426	448,212	330
Nashville, Chattanooga & St. Louis	2,400,772	1,429,964	970,808	600
Norfolk & Western	3,252,057	1,960,909	1,291,147	533
Shenandoah Valley	740,654	623,995	116,659	255
Totals, 8 roads	29,867,907	18,499,425	11,368,482	5,426
Southwestern				
Fort Worth & Denver City	445,481	240,658	204,828	163
Kansas City, Fort Scott & Gulf	2,539,338	1,475,527	1,063,811	339
Kansas City, Springfield & Memphis	1,569,708	1,088,999	480,709	282
St. Louis & San Francisco	4,874,628	2,049,033	2,825,595	930
Southern Pacific Company:				
Galveston, Har. & San Antonio	2,599,463	2,322,422	277,041	936
Louisiana & Western	644,688	315,472	329,216	112
Morgan, Louisiana & Texas	4,185,437	3,142,310	1,043,127	283
Texas & New Orleans	998,169	563,750	434,419	206
Totals, 8 roads	17,856,812	11,198,166	6,658,746	3,303
Mexican				
Mexican Central	3,857,776	2,453,059	1,404,617	1,236
Mexican National	1,743,521	1,446,472	297,149	865
Totals, 2 roads	5,601,297	3,899,531	1,701,766	2,101
Totals, 55 roads	456,984,800	295,425,613	161,508,687	55,500

Earnings, Expenses, Net Earnings and Mileage of 55 Railroads in the Year 1885

ROADS	Gross Earnings	Operating Expenses	Net Earnings	Mileage
Granger				
Burlington, Cedar Rapids & Northern	$3,093,514	$2,189,542	$903,972	990
Chicago, Burlington & Quincy	26,556,425	13,872,128	12,684,297	3,531
Chicago, Milwaukee & St. Paul	24,413,273	14,512,471	9,900,802	4,862
Chicago & Northwestern	24,301,058	13,934,394	10,366,664	3,843
Minneapolis & St. Louis	1,714,753	1,077,680	637,073	351
Totals, 5 Roads	80,079,023	45,586,215	34,492,808	13,577
Trunk Line				
Lake Shore & Michigan Southern	14,088,457	9,247,081	4,841,376	1,340
Michigan Central	10,707,394	8,014,603	2,692,791	1,506
New York Central	24,495,873	16,521,496	7,974,377	958
New York, Chicago & St. Louis	3,203,513	2,433,976	769,537	523
Pennsylvania	45,615,027	29,479,758	16,135,269	2,250
Totals, 5 Roads	98,110,264	65,696,914	32,413,350	6,578
Coal				
Buffalo, Rochester & Pittsburgh	1,249,016	887,993	361,023	294
Delaware & Hudson	15,260,866	10,724,906	4,535,960	794
Delaware, Lackawanna & Western	31,091,677	23,663,754	7,427,923	888
New York, Susquehanna & Western	1,092,355	587,441	504,914	154
Northern Central	5,490,923	3,255,614	2,285,309	328
Philadelphia & Reading	29,230,543	16,211,575	13,018,968	1,583
Phila. & Reading Coal & Iron Co.	15,960,826	16,111,520	*150,694	
Western New York & Pennsylvania	2,599,315	2,040,445	558,870	668
Totals, 8 Roads	101,975,521	73,483,248	28,492,273	4,699
Central Western				
Cincinnati, Ind., St. Louis & Chicago	2,373,467	1,504,140	869,327	342
Chicago, St. Louis & Pittsburgh	4,567,596	3,807,645	759,951	580
Chicago & West Michigan	1,297,301	948,513	348,788	413
Detroit, Lansing & Northern	1,228,471	771,271	457,200	261
Grand Rapids & Indiana	1,946,143	1,342,428	603,715	396
Ohio & Mississippi	3,679,615	2,644,644	1,034,971	616
Totals, 6 Roads	15,092,593	11,018,641	4,073,952	2,611
Eastern				
Baltimore & Potomac	1,323,091	768,551	554,540	92
Boston & Albany	7,758,871	5,389,694	2,369,177	384
Camden & Atlantic	575,203	427,204	147,999	77
New York & New England	3,453,714	2,462,718	1,090,996	379

1885—Continued

ROADS	Gross Earnings	Operating Expenses	Net Earnings	Mileage
Eastern—Continued				
Philadelphia & Erie	$3,292,258	$1,999,378	$1,292,880	288
Rome, Watertown & Ogdensburg	1,741,163	1,112,537	628,626	449
West Jersey	1,236,012	809,395	476,617	200
Totals, 7 roads	19,430,807	12,869,472	6,560,885	1,869
Pacific				
Canadian Pacific	8,868,493	5,143,277	3,225,216	3,064
Denver & Rio Grande	6,119,058	3,935,278	2,183,780	1,317
Northern Pacific	11,349,699	5,787,937	5,561,762	2,691
Oregon Improvement	2,866,060	2,247,543	618,517	.....
Oregon Railway & Navigation Co	5,102,737	2,796,225	2,306,512	685
Union Pacific	25,925,171	16,157,721	9,767,450	4,519
Totals, 6 roads	59,731,218	36,067,976	23,663,237	12,276
Southern				
Ginn., New Orleans & Texas Pacific	2,681,547	1,616,735	1,064,812	336
East Tennessee, Virginia & Georgia	4,119,147	2,705,715	1,413,432	1,104
Kentucky Central	847,070	574,658	272,412	258
Louisville & Nashville	13,671,336	8,341,136	6,330,200	2,023
Memphis & Charleston	1,339,848	1,038,483	301,365	330
Nashville, Chattanooga & St. Louis	2,134,527	1,274,389	860,138	554
Norfolk & Western	2,771,121	1,649,292	1,121,829	502
Shenandoah Valley	694,892	663,162	31,730	255
Totals, 8 roads	28,259,488	17,863,570	10,395,918	5,357
Southwestern				
Fort Worth & Denver City	464,456	272,066	192,390	144
Kansas City, Fort Scott & Gulf	2,546,526	1,557,091	989,435	339
Kansas City, Springfield & Memphis	1,511,461	1,146,300	365,161	282
St. Louis & San Francisco	4,383,406	1,929,962	2,553,444	815
Southern Pacific Company:				
Galveston, Har. & San Antonio	3,236,641	1,691,245	1,545,396	936
Louisiana & Western	627,317	283,872	343,445	112
Morgan, Louisiana & Texas	4,205,451	2,655,250	1,550,201	283
Texas & New Orleans	1,017,620	530,419	487,201	208
Totals, 8 roads	17,992,878	10,066,205	7,926,673	3,169
Mexican				
Mexican Central	3,558,570	2,033,099	1,525,471	1,236
Mexican National	1,321,627	1,112,725	208,892	865
Totals, 2 roads	4,880,197	3,145,834	1,734,363	2,101
Totals, 55 roads	425,551,584	275,798,075	149,753,409	52,283

Earnings, Expenses, Net Earnings and Mileage of 55 Railroads in the Year 1884

ROADS	*Gross Earnings*	*Operating Expenses*	*Net Earnings*	*Mileage*
Granger				
Burlington, Cedar Rapids & Northern	$ 2,796,459	$ 1,917,769	$ 878,690	774
Chicago, Burlington & Quincy	25,483,612	13,072,504	12,411,108	3,394
Chicago, Milwaukee & St. Paul	23,470,998	13,859,628	9,611,370	4,780
Chicago & Northwestern	23,491,898	14,099,939	9,391,959	3,843
Minneapolis & St. Louis	1,734,026	1,251,126	482,900	351
Totals, 5 Roads	76,976,993	44,200,966	32,776,027	13,142
Trunk Line				
Lake Shore & Michigan Southern	14,843,584	9,133,521	5,710,063	1,340
Michigan Central	11,659,077	8,959,132	2,699,945	1,508
New York Central	27,044,710	17,346,600	9,698,110	953
New York, Chicago & St. Louis	3,207,590	2,389,233	818,357	523
Pennsylvania	48,566,911	30,527,009	18,039,902	2,202
Totals, 5 Roads	105,321,872	68,355,495	36,966,377	6,526
Coal				
Buffalo, Rochester & Pittsburgh	1,129,265	796,548	332,717	294
Delaware & Hudson	16,379,021	11,549,871	4,829,150	794
Delaware, Lackawanna & Western	31,311,992	23,393,180	7,918,812	888
New York, Susquehanna & Western	1,084,208	416,521	617,687	154
Northern Central	5,521,876	3,468,394	2,053,482	328
Philadelphia & Reading	30,972,160	17,759,427	13,212,733	1,588
Phila. & Reading Coal & Iron Co.	16,460,972	16,062,494	398,478	—
Western New York & Pennsylvania	2,504,868	1,888,826	616,042	674
Totals, 8 Roads	105,314,362	75,335,261	29,979,101	4,710
Central Western				
Cincinnati, Ind., St. Louis & Chicago	2,434,780	1,525,857	908,923	342
Chicago, St. Louis & Pittsburgh	4,396,839	3,522,166	874,673	580
Chicago & West Michigan	1,469,667	1,000,690	468,977	413
Detroit, Lansing & Northern	1,328,591	865,270	463,321	261
Grand Rapids & Indiana	2,116,299	1,502,579	613,720	396
Ohio & Mississippi	3,702,959	2,926,734	776,225	616
Totals, 6 Roads	15,449,135	11,343,296	4,105,839	2,611
Eastern				
Baltimore & Potomac	1,224,571	838,938	385,633	92
Boston & Albany	8,021,820	5,619,222	2,402,598	384
Camden & Atlantic	575,455	471,056	104,399	77
New York & New England	3,261,627	2,659,333	602,294	382

1884—Continued

ROADS	Gross Earnings	Operating Expenses	Net Earnings	Mileage
Eastern—Continued				
Philadelphia & Erie	$ 3,660,146	$ 2,202,066	$ 1,458,080	288
Rome, Watertown & Ogdensburg	1,727,683	1,115,666	612,017	418
West Jersey	1,319,649	816,343	503,306	200
Totals, 7 roads	19,700,951	12,722,624	6,068,327	1,841
Pacific				
Canadian Pacific	5,750,522	4,558,632	1,191,890	2,974
Denver & Rio Grande	5,552,104	3,758,529	1,793,575	1,817
Northern Pacific	12,613,305	6,493,332	6,119,973	2,458
Oregon Improvement	3,370,762	2,545,712	825,050	—
Oregon Railway & Navigation Co	4,298,341	2,534,303	1,764,038	685
Union Pacific	25,657,290	14,865,115	10,789,175	4,476
Totals, 6 roads	57,242,324	34,756,623	22,483,701	11,905
Southern				
Cinn., New Orleans & Texas Pacific	2,658,185	1,754,174	904,011	336
East Tennessee, Virginia & Georgia	3,993,622	2,510,721	1,482,901	1,100
Kentucky Central	922,107	603,622	318,485	253
Louisville & Nashville	13,662,465	8,289,829	5,372,636	1,616
Memphis & Charleston	1,428,682	1,030,186	398,496	330
Nashville, Chattanooga & St. Louis	2,358,682	1,342,943	1,015,739	554
Norfolk & Western	2,711,152	1,516,857	1,194,295	502
Shenandoah Valley	742,371	613,015	129,356	255
Totals, 8 roads	28,477,266	17,651,347	10,815,919	4,946
Southwestern				
Fort Worth & Denver City	463,568	248,860	214,708	110
Kansas City, Fort Scott & Gulf	2,422,443	1,407,693	1,014,750	339
Kansas City, Springfield & Memphis	1,204,274	840,896	363,378	282
St. Louis & San Francisco	4,643,596	2,120,542	2,523,054	801
Southern Pacific Company:				
Galveston, Har. & San Antonio	2,901,591	1,978,761	922,830	936
Louisiana & Western	485,709	269,162	216,547	112
Morgan, Louisiana & Texas	3,629,006	2,465,867	1,163,139	288
Texas & New Orleans	872,140	516,621	355,519	208
Totals, 8 roads	16,622,327	9,848,402	6,773,925	3,021
Mexican				
Mexican Central	3,016,070	2,419,457	596,613	1,236
Mexican National	1,363,178	1,215,469	147,709	865
Totals, 2 roads	4,379,248	3,634,926	744,322	2,101
Totals, 55 roads	429,574,478	278,860,940	150,713,538	50,308

According to information furnished by officials of the several states the aggregate mileage of the United States on the 1st of January, 1888, was 153,056 miles. Between 10,000 and 12,000 miles of track were laid in 1887. The state taxes paid by railroads in 1887 amounted to $15,773,253.

I find that in 1887 there were in the principal cities of the country nearly 2,000 miles of street railways moved by horse-power, and 77 of cable railroad, of which about 26 were in Chicago, 22¾ in San Francisco, 6¼ in New York and 8½ in Philadelphia. There are a few miles of railway on which the cars are propelled by electricity, and upwards of 170 miles wheron the propelling power is steam.

Some of the British possessions possess a few miles of railway, as will appear in subjoined tables. The possessions of the French, Danish, and Dutch do not seem to have this facility.

Island of Trinidad	54¼ miles.	Receipts in 1887	£48,700
" " Jamaica	93 "	" " 1886	47,300
" " Barbados	23¼ "		
British Guiana	23 "	in 1888.	

With only a few exceptions the countries embraced in this work are provided with telegraphic facilities to maintain communication within themselves, or with their neighbors. Nearly all of them are also directly or indirectly connected with the outside world by means of submarine cables.

Without attempting to give here a history of the magneto-electric telegraph, I will merely state that Professor Morse's invention, generally recognized as the most efficient and simple, was first made public in New York by its author in 1837. He obtained a patent from the United States government in 1840, and the invention was for the first time brought into practical use between the cities of Washington and Baltimore, on the 27th of May, 1844. Since that time several other systems have been devised, but Morse's has thus far been preferred, for long distances at least. Many improvements and additional machinery have been invented, and telegraphic service has been thereby brought to what would seem perfection; and yet the work of improvement and of new discovery goes on.

As early as 1797, Francisco Salvá had a clear idea that electric communication could be maintained under the sea, and in one of his papers proposed the voltaic pile as preferable to the electrical machine. He suggested a plan to establish submarine telegraphing between Barcelona, and Palma in the Balearic island of Majorca. Dr. O'Shaughnessy made experiments in India in 1839. Wheatstone expressed the opinion that submarine communication could be established under the British channel between France and England. In 1842, Morse laid an insulated wire between Governor's island and the Battery, in the city of New York, and Samuel Colt, in 1843, extended another from Coney island to the Battery. Siemens laid a wire, insulated with gutta percha, across the Rhine from Deutz to Cologne. J. W. Butt laid a wire in August, 1850, between Dover and Calais. In 1857, was unsuccessfully made the first attempt to lay a submarine cable across the Atlantic ocean. The second attempt in June, 1858, had no better result. The third

attempt, August 5th, 1858, was successful, but owing to imperfect insulation, the cable became useless in a few days. A fourth attempt made in 1865 was unfortunate, the cable having parted, while being laid, during a heavy storm. The fifth effort was made the next year, when the Great Eastern successfully laid a cable between Trinity bay and Valencia, having a length of 2,134 miles. The Great Eastern then proceeded to the place where the cable of 1865 was parted, and succeeded in splicing it and completing the line. In 1869, a French cable was laid between Brest and St. Pierre, and between St. Pierre and Duxbury in Massachusetts.

In 1870, upwards of 15,000 miles of submarine cable were already laid, including the Indian and China cables. Since that time, several other cables have been laid between the United States and Europe. In 1873, a cable was laid between Lisbon and Madeira; the next year Madeira was connected with the Cape Verde island of St. Vincent, 1,200 miles, and St. Vincent with Pernambuco in Brazil, 1845 miles. Some years earlier, a short line had been established between Habana, Cuba, and Key West, and hence to a point in Florida. Subsequently other lines have been established, by means of which Central and South America are connected between themselves, and with the West Indies, the United States and Europe, and thereby with the rest of the civilized world. The telegraph mileage of the world on the 1st of January, 1888, has been estimated at 750,000 miles of poles, and 2,250,000 miles of wires.

The telegraph has kept pace in Mexico with other improvements promoted in recent years. In a country whose population is so scattered this means of communication demands especial care, for the preservation of peace and security, as well as for facilitating social relations and trade.

The first line was established in 1851, between Mexico and Puebla. But the system has been vigorously developed only within the last twenty years. In 1872, the number of kilometres in course of construction did not exceed 7,800, while in 1880, it was 16,900. The following figures show the condition of telegraphic service in the Mexican republic in 1886: Extent of lines: 21,000 kilometres of government lines, 1,653 kilometres of state lines, 4,431 kilometres of railroad lines, 8,801 kilometres of lines belonging to private parties; 36,385 kilometres, or upwards of 19,000 miles of lines with about 82,400 miles of wire. The telephone is also used in several places. The republic is connected by submarine cable with the United States and with the isthmus of Panamá.

The Central American republics are intersected by telegraphic lines belonging to their respective governments, which connect their chief towns with one another within themselves, and with their sister republics. The construction of telegraphic lines began about 1870. A submarine cable, extended from the port of La Libertad to Panamá, furnishes rapid telegraphic communication between Central America and the outer world.

Guatemala had in 1885, some 1,800 miles of telegraphic lines, and about 3,000 miles of wire, and probably 30 offices. In Salvador there were in 1887, some 1,260 miles of telegraph in operation and construction, with 68 stations. In 1883, 151,526 messages were transmitted. Honduras is credited with the possession of about 338 miles of telegraph. Number of messages transmitted in 1883, 107,730. Nicaragua is reported to have had in 1884, in operation, 2,000 kilometres of wire, with 45 offices. The number of messages sent was 123,141, of which 18,694 were government dispatches, and 12,840 related to the working of the lines. In 1886, the republic is reported to have had 830 miles of lines.

with 45 offices. Early in 1886, there went into operation a telephone between Managua and Masaya, and soon after another between San Ubaldo and Acoyapa. Costa Rica, in 1886, had three sections of telegraph, forming together 451 miles in length, with 34 offices, one of the lines connecting Liberia with Nicaragua. In January of that year, there were 12 telephone offices in San José, and the system was rapidly increasing.

Colombia has a system of efficient telegraphic service, both in the interior and with foreign countries.

In 1875, there were 1,227 miles of telegraph in operation; in 1880, 1,835 miles; in 1886, 2,8.7 miles of lines and 4,714 miles of wires. The isthmus of Panamá has telegraphic connection between both seas. It is in communication by submarine cable with Central America and Mexico at La Libertad and Acapulco. It is connected with Perú, via Buenaventura, which also places it in communication with Bogotá and other parts of Colombia. A cable to Jamaica affords another connection, via Cuba, with the United States of America.

Venezuela and Ecuador have also managed to keep pace with their South American sisters in the march of improvement, by providing a system of telegraphs in their respective territories.

Venezuela had in 1880, only 330 miles of telegraphs; in 1886, she is credited with the possession of about 2,830 miles of lines, and 5,742 miles of wires. There were about 1:0 miles of submarine cables in 1878. The number of telegraphic offices was 83. The seven lines owned and operated by the national government connected the chief towns with one another. At San Antonio del Táchira connection was made with the wires of Colombia. Dispatches were wired at the rate of 20 cents for 10 words. There was in 1887, one line of telegraph to the sea-coast, 118 miles; another from Guayaquil to Quito, 270 miles, and a third one to Cuenca.

The telegraphic service in Brazil is under government control. The system was completed in June, 1886, to the port of Vizen in Pará, where it connects with the cable system of the world, and the Belem land telegraph. Seventeen provinces were then in direct telegraphic communication with one another, and with the outside world.

In June 1887, there were in operation 10,610 kilometers, or about 6,440 miles of telegraph lines, with 18,312 kilometers of wire, and 171 stations.

No. of messages transmitted in the year 1884-5		367,789
Receipts	milreis	700,619
Expenses	"	2,109,571
Deficit	"	1,408,952

The lines run from Ceará to the frontier of Uruguay. The chief cities on the coast are united by a cable belonging to a foreign company. The empire is in telegraphic connection by submarine cable with Lisbon, via Cape Verde islands. Another line of 4,500 kilometres long joined, on the 11th of June, 1886, Rio de Janeiro, and Bragança, a city in the province of Pará. The Pedro II American Telegraph Cable company obtained valuable concessions from Brazil and Venezuela to establish direct communication between the two countries and New York. New York and Pará connected in 1887.

The Argentine Republic has developed a very efficient system of telegraphic service to keep in perfect connection her towns, and to maintain communication with her neighbors and the rest of the world.

In 1881 the republic had 7,320 miles of telegraphs in operation, of which about 5,800 belonged to the government, and 1,520 to private companies. The total length of wires at the time was 12,500 miles. The number of telegraphic dispatches sent in 1880 was 290,000. At the end of 1882 there were 13,543 kilometres (or about 83.6 miles), of which 10,772 kilometres belonged to the government. Number of offices, 202; of dispatches wired, 506,928, of which 71,838 were official. By December, 1883, there were 1,727 additional miles of government lines completed. In December, 1882, there were two telephone companies in Buenos Aires with 1,500 subscribers. The lines in operation in 1885

aggregated 18,767 miles, employing 1,283 persons. The service was extended in 1886 70 kilometres beyond Buenos Aires, facilitating communication with the new port of call, Ensenada. In this last named year there were 13,645 miles of lines in operation; of them 11,360 were the property of the national and provincial governments, the rest belonging to private companies. The number of telegraphic dispatches transmitted was 658,461 in 1885. Number of offices in 1886, 651. In 1887 the Argentine republic is credited with 14,444 miles of lines, and 26,751 miles of wires. There is a snow-cable, since 1872, across the Andes, through the Upallata pass, connecting Mendoza, and thence Buenos Aires, with Valparaiso, from which latter port a submarine cable furnishes communication with the United States. The subfluvial telegraph, connecting Buenos Aires and Montevideo, brings them into communication with Rio de Janeiro, and thence with Cape Verde islands, Europe and the east coast of the United States.

Uruguay is also well provided with telegraphic facilities, both within her own territory, and to communicate with her neighbors and other foreign nations.

At the end of 1879 there were 758 English miles owned by three companies, namely, Compañia Telegráfica Platina, Linea Oriental, and the River Plate Telegraph Company (Limited), this last named owning more than half the lines. In 1884 there were about 1,082 miles of lines, and some 3,480 miles of wires. In 1887 the number of miles of lines was 1,162, and the service was performed with 32 offices. In 1886, 140,095 telegrams were dispatched.

Under an arrangement with the Argentine republic the Uruguayan land lines are extended to the island of Martin Garcia, situated on the Plata river within Argentine territory. Through the Argentine Transandine Telegraph Uruguay has communication with the Pacific coast. As stated before, a subfluvial telegraph connects Montevideo with Rio de Janeiro; hence the connection with Europe, the United States, etc.

Paraguay is as yet possessed of limited telegraphic facilities.

There was in 1887 a line of telegraph by the side of the railway from Asuncion to Paraguari. In 1884 a new line was opened, connecting Asuncion with Corrientes in the Argentine republic, and thence with the rest of the world.

Bolivia is not entirely devoid of telegraphic facilities. The total length of her lines in 1886 was about 400 miles.

There is one line between Chililaga, on Lake Titicaca, and La Paz and Oruro. In 1886 there were several stations connecting with the Argentine telegraphic system, viz: Cotagaita, Huambaca, Potosi, Sucre or Chuquisaca, La Paz and Tupiza. Communication with La Paz is also had via Mollendo.

Perú is tolerably provided with telegraphic lines for both internal and external communications.

In 1878 she had 1,382 miles of telegraphs. That number had been increased to 1,581 in 1882, with 34 offices, the number of telegrams transmitted that year having been 110,669. The telegraph cable laid on the west coast of South America has stations at Paita, Callao, Lima, and Mollendo. Perú is in direct communication with the telegraphic system of the world.

Chili possesses telegraphic facilities in abundance. The land system is in charge of the government, but there were likewise a few lines in private hands.

In 1875 there were 2,559 miles of telegraph line in the republic, the number of messages in 1874 having been 270,198. In 1885 there were 126 offices, 10,320 kilometres of wire; cost $688,189. Private messages sent, 411,784; government messages, 110,390. Receipts, $198,609. There was a private line between Santiago and Valparaiso; another between Santa Rosa de los Andes and the Argentine republic. The total length of telegraphic lines of Chili at the end of 1886 was about 9,000 miles, of which 7,800 belonged to the state. The number of offices 180, and of messages transmitted in that year 533,596. Finally, there is a cable laid along the coast by which communication is maintained with the world's cable system.

The Dominican republic is understood to have only about 25 miles of lines and 62 miles of wires.

The Spanish West India possessions are intersected with telegraphic lines, and also enjoy communication with the rest of the world by submarine cables.

Cuba had in 1887 about 2,810 miles of telegraph lines, and Porto Rico about 470. Cuba has communication with the rest of the world by the submarine cable from Habana to Key West and the mainland of Florida, and also by the cable extended from Santiago de Cuba to Jamaica. Porto Rico is also connected with the latter by cable.

The United States, in the extent of its telegraphic service, has exceeded all other nations. In 1860 it was estimated that there were already 50,000 miles in operation, and in 1876 no less than 150,000 miles of wire, while in the aggregate about 700,000 miles of wire formed the network spread over the earth for telegraphic purposes. The history of the telegraphic lines in the United States is an interesting one, and will be found below.

In 1881, the Western Union Telegraph company acquired by purchase all the lines owned by the American Union and the Atlantic and Pacific Telegraph companies, the former having previously 12,000 miles of lines and the latter 8,706. The capital stock of the Western Union was $80,000,000. The Western Union has, besides, exclusive contracts with several international cable companies, operating eight Atlantic cables, and guarantees 5 per cent. annual dividends on the stock of the American Cable company, amounting to $14,000,000. The Western Union in 1884 had 145,037 miles of line, 450,571 miles of wire, and 13,761 offices. Their receipts were $19,632,940; their expenses, $13,022,504; and their profits $6,610,436. The number of their messages was 42,076,226. The average profit per message was 15¼ cents. There are, furthermore, a number of new lines operating wires with or without connection with railway companies, having complied with the requirements of the national law of 1866. The Mutual Union Telegraph company of the United States, established in 1881, owned about 8,000 miles of line, 60,000 miles of wire, and 1,200 offices. It was extending north and south. Its capital stock is $10,000,000. This line is leased and operated by the Western Union. The Baltimore and Ohio Railroad Telegraph had lines along its main railway system and its branches, besides other wires extended south and west, making together 4,000 miles of line, and 29,000 miles of wire. Capital stock unknown. The Bankers and Merchants' Telegraph company, organized in 1881, had 4,000 miles of line and 28,300 miles of wire, and was operating to many important points. Its authorized capital is $3,000,000; and its debt $7,500,000. The American Rapid Telegraph company, connecting the principal cities north, south, etc., with a capital of $4,000,000, made a fusion with the last named. The Postal Telegraph and Cable company of New York, organized in 1881, had 1,500 miles of line, and 4,500 miles of wire in operation. The company claimed the ownership of many valuable patents in improved wires and telegraphy. Its authorized capital is $21,000,000, of which about $7,500,000 had been issued.

The aggregate mileage of telegraph lines in the United States opened for business in 1884 exceeded 164,000 miles, aside from railway, government, and telephone lines. The telegraphs of the United States may be said to be almost wholly under the control of the Western Union Telegraph company, whose capital stock is about $86,250,000. This company has exclusive contracts with several international submarine cable companies, which have in operation 8 Atlantic cables, and guarantees 5 per cent. annual dividends on the stock of the American cable; amount $14,000,000. The company had already in 1886, 151,832 miles of lines, 489,607 miles of wire and 15,142 offices; the number of messages sent that year was 43,289,807; the receipts were $16,298,638; the expenses, $12,378,783; the net earnings, $3,919,855. Besides the above, there are many new lines of telegraphs which are lawfully operating wires with or without connection with railroad lines. The aggregate mileage of telegraph lines in the United States in 1887, exceeded 180,000 miles, besides railway, government, private, and telephone lines, whose actual length is not ascertainable. However, one report for 1887 gives the following figures: Length of lines, 156,814 miles; length of wires 524,614; number of offices, 15,658; number of messages

transmitted, 47,894,530; receipts, $17,191,910; expenses, $13,154,629; profits $4,037,281. Average toll per message, 36.2 cents; average cost per message, 27.7 cents; average profit per message, 8.5 cents. Another report for the same year sets down the number of miles of line at 231,588, and of wire at 727,282. Another account gives for 1886, 170,000 miles of line.

The American Bell Telephone company of Boston had on the 1st of January, 1888, 333,518 telephones, and 736 exchanges in various cities of the United States. The aggregate of telephone wires operated on was 128,231 miles; the company's capital stock was $9,802,100; the gross receipts for the year ending January 1, 1887, had been $3,057,000; the net earnings, $1,947,583. The dividends paid in 1886 were 16 per cent. on the capital. The aggregate number of telephones in use throughout the United States, including those of competing lines, much exceeds that given above. The extent in mileage of telegraph wires put up for telephone use in the United States, is stated to be about 140,000 miles.

The British, French, and Danish West India islands enjoy the facilities of telegraphic communication with one another and with other countries, although but few of them have land lines.

The Bermudas had in 1886, 32 miles of telegraph wire and 15 miles of cable. The number of messages sent in 1885 was 34,500. In Jamaica there were, in 1886, 623 miles of line. A law was passed in January, 1879, authorizing the establishment of an inland telegraphic system. The director of public works is entrusted with the erection and maintenance of lines, but the management of the department is vested in the postmaster of Jamaica. A school of telegraphy was soon after established in Kingston, at which, as well as at the district stations, have been trained all the operators employed in the service. The telegraph department is worked on the system practised in England, which has proved successful. The first communication was established in October, 1879, between Kingston and St. Ann; the circuit of the island was completed on March 4, 1881. From that time the telegraph service has been productive of much good. The West India and Panamá Telegraph company has cables connecting the island of Jamaica with the other West India islands, English, French, and Danish, Porto Rico and Cuba, Guiana and Panamá. Those countries are thus placed in telegraphic communication through Cuba, with North America and Europe, and through Panamá with the nations of Central and South America. British Guiana had in 1886, 280 miles of telegraph. Belize receives telegrams from abroad by steamer from New Orleans. Trinidad has telegraph and telephone communications along the railroad lines.

Under the laws of the United States, discriminating duties of tonnage and impost on foreign vessels and their cargoes are to be levied in all cases where exemption therefrom has not been stipulated in especial treaties, or provided for in especial laws. Thus:

First class: Vessels of the Argentine Republic are admitted with the produce or manufacture of their own, or any other nation, as respects tonnage and impost duties, on the same terms as vessels of the United States. Vessels of Bolivia, Brazil, Chili, Colombia, Dominican Republic, Ecuador, Guatemala, Hayti, Honduras, Mexico, Nicaragua, Paraguay, Salvador, and Venezuela are admitted in ports of the United States on the same terms as those of the latter, as respects duties, imposts, and charges. British vessels and their cargoes from any port of the world, are admitted at ports of the United States on the same terms, as to duties, imposts, and charges, as those of the United States.

Second class: Costa Rican vessels are admitted into the United States, as respects tonnage or navigation duties, on the same terms as vessels of the United States, with the produce or manufacture of their own, or any other country. Their cargoes, when consisting of the products or manufactures of their own country,

are exempt from discriminating impost duty unless otherwise especially indicated.

Third class: There are nations with whom the United States have commercial relations, whose vessels do not come within either of the preceding classes. A discriminating duty of 10 per cent. is charged on their cargoes, and tonnage duty at alien rates; two and a half dollars per ton in addition to the ordinary annual tonnage tax of 30 cents per ton, must be imposed in all cases at every entry of a port in the United States, unless otherwise indicated. French vessels entering ports of the United States are relieved from discriminating duties, and also from discriminating impost duties on importations in French vessels from France and her dependencies; also on merchandise imported in such vessels from the country of its origin. But the discriminating duty of 10 per cent. must be collected upon all merchandise imported in French vessels, from countries other than France; no discrimination is to be made against the products of other countries so imported from France in French vessels. All discriminating tonnage duties on Spanish vessels have been discontinued, whether they come from the islands of Cuba and Porto Rico, or from elsewhere. Merchandise arriving in the United States upon Spanish vessels from Cuba and Porto Rico is subjected to a discriminating duty of 10 per cent. ad valorem. When coming from other ports of the Spanish dominions, it is exempt from such discriminating duty. A Spanish vessel, sailing from a port of Spain for a port of Cuba, and leaving the latter without breaking bulk, or taking in any goods at said island, her voyage would be, under the circumstances, regarded as a continuous one. She would not, nor her cargo, be subjected to any other or higher duties of tonnage or imposts than if she had come direct from Spain to the United States. The treaty of 1848, between the United States and the Mexican republic, confirmatory of the general commercial stipulations of that of 1831, places vessels of the United States in Mexican ports on the same footing as Mexican vessels as regards tonnage, harbor and light dues, pilotage, salvage, and all local charges. The coasting trade is, however, reserved by either nation for its own vessels. United States vessels may import into Mexican ports, merchandise the growth or manufacture of the United States, on the same terms as if the same were imported in Mexican bottoms. The duties of import are to be no higher, or other than levied on similar merchandise the growth or manufacture of the most favored nations. Mexican vessels and merchandise enjoy, in ports of the United States, the same privileges that are accorded to American vessels and merchandise in Mexican ports. In continuation will be found the customs regulations, port charges on vessels, duties on foreign imports, and internal taxes levied in the Mexican republic.

The only difference as to port charges between Mexican and foreign vessels is that the former are exempt from tonnage dues, and the latter have to pay $1 per ton. Although the coasting trade is reserved to Mexican bottoms, foreign vessels are permitted to go from one port of entry to another, and discharge portions of their cargoes brought from abroad, paying tonnage dues only once at the first port of entry. Pilotage is not obligatory; the rate is $1.50 to $2 per foot. Provisions at Mexican ports are scarce and dear: water is

scarce and poor, and costs 1½ to 2 cents per gallon. Foreign nations at peace with Mexico may carry on commerce through her ports of entry; those on the borders, through the frontier custom houses. Vessels can discharge cargo only at duly qualified ports: if any of these should be in possession of an enemy of the government, it will be closed to foreign commerce, way trade, and coasting trade. Vessels are considered to have arrived the moment they enter the territorial waters of the republic.

Foreign vessels pay the following port charges: For each ton, cubic measure, which the collector of the customs may cause to be rectified when he deems it proper, $1. Pilotage, payable at the office of the captain-of-the-port, but only when it has been called for. Light dues, for entering and departing, where there is a light-house, $25.

Steamers, even when bringing merchandise, pay no tonnage dues, but are charged the following: When they bring cargo, light dues, where there is a light-house, $100; for sailing after discharging, light-house dues, $100.

Sailing vessels arriving fully laden with mineral coal are exempted from tonnage duty, and only pay the light dues where there is a light-house, and for pilotage, where a pilot has been employed. If they bring merchandise, besides coal, they must pay, for each ton occupied by such merchandise, $1.

Vessels destined for two or more ports of the republic must pay at the first port of arrival the whole tonnage dues, the voucher for which will serve to exempt them from again paying such dues at the other ports.

Vessels laden with Mexican dye-woods, or other products, and visiting one or more ports of the republic, are exempt from tonnage and light dues. They must prove that the cargo is of Mexican products. Pilotage, if called for, must be paid.

Vessels, after paying the above-mentioned duties, are not expected to pay fees, or give douceurs to any employé of the government.

Vessels arriving merely to bring and receive passengers, correspondence, metals, dye-woods, and other Mexican products, may go to all the ports of the republic open to commerce of the high seas, without paying tonnage dues.

Whalers and other vessels making long voyages to foreign ports, may come into those of Mexico for the purposes of wintering, watering, obtaining supplies, or repairing, and will not be called upon to pay tonnage or other duties.

When there are no Mexican vessels to carry on the coast trade, foreign sailing and steam vessels are allowed to engage in such trade. When the quantity of merchandise prepared for shipment from one port to another of the republic is so small that it would not be enough to fill a Mexican vessel, its shipment upon a foreign steamer is permitted.

The fact of a foreign vessel arriving at a port of the republic with Mexican effects shipped at any other Mexican port, shall not subject her nor the merchandize to any penalty, for if there should be any irregularity in the clearance, the collector of the custom-house at the port where she cleared will be answerable therefor.

Vessels of war of all nations are exempted from the payment of all the dues aforesaid.

Every shipmaster ariving with cargo at a Mexican port is bound to produce his manifest, and the shippers must produce the bills of lading as required by law. Vessels from the United States must produce the visa of the Mexican consul at the port of departure. This is also required from vessels direct from Europe. The manifest and bill of lading will be accepted by the customs authorities as a basis for entering the merchandise; but they must agree with the cargo as it is discharged. The vessel is held responsible for errors or misdeeds of owners of goods. The absence of such documents, or any omission in them, is liable to be punished by a fine.

The copies of manifests or bills of lading, where there is no Mexican Consul or Commercial Agent, must be forwarded by post, under cover, one each to the treasury department of Mexico, and to the custom house to where the goods are consigned.

Manifests must be legibly written and clearly compiled, as on next page.

Owners and masters of vessels must be careful to strictly carry out these regulations. The customs authorities will seldom overlook any infringement of them; but will, on the contrary, inflict heavy pecuniary penalties for even very slight defects.

GENERAL MANIFEST of Cargo shipped on board (here give nationality, rig, and name of the vessel), Captain , of the burthen, per register, of tons, bound for in the Republic of Mexico, and consigned to , there, (or to the said captain or supercargo).

Marks	Numbers	Gross weight of each package		Number of packages		Description of packages	Description of merchandize	Shippers	Consignees
D M	1 to 10	100	One hundred pounds	10	Ten	Barrels	White wine	N. N.	N. N.
J P O	1 to 100	100	One hundred pounds	10	Ten	Bales	Cotton manufactures	N. N.	N. N.

Dated in the port of this day of , 18 .

(Signature, with declaration of captain that he does not bring any other goods, and comes with the intention of trading legally with the republic.)

NOTE.—The above form must be strictly observed.

Customs Tariff of Mexico.

NOTE.—To avoid being misled by apparent reductions, which, perhaps, really imply increased duties, it is necessary to pay great attention to the alterations in the class of weight on which the duty is leviable. For instance, in the case of cotton thread, which previously paid 1.60 dollars per kilog. net, the duty has been altered to 1.20 dollars per kilog. legal, the effect of which is to considerably increase the duty, in place of reducing it by 25 per cent., as would appear at first sight to be the case.

NOTE.—By "net weight" must be understood the actual weight of the merchandise; by "legal weight" that which includes, besides the "net weight," that of the interior bottles, boxes, winders, wrappers, etc., in which the articles are imported; and by "gross weight," the total weight of the packages. When merchandise, which pays according to the "legal weight," has no other covering besides the one which forms the outside package, the actual weight of the merchandise will be considered to be its legal weight.

Kilogramme=2.204 lbs. avoirdupois; square metre=1.196 square yards; dollar=4s. 2d.

ARTICLES FREE OF DUTY.

Copper wire, insulated with any material, for electric lighting, provided the diameter of the wire alone be up to No. 6 Birmingham measurement, and that the interested persons prove its destination; barbed iron wire for fences, with staples for fixing it; sulphuric, phenic, and hydrochloric acid; apparatus for extinguishing fires, with up to six spare charges; potter's clay, sand and fine sand; white arsenic; asbestos in powder; steel bars for mines, cylindrical or octagonal; Spanish white; ropes of aloes and hemp, up to 8 centimetres in diameter, or 94.2 millimetres in circumference; iron or steel wire cables of any thickness; common lime and Roman cement; iron or lead piping, of all sizes; hoes, common cane knives without sheaths, scythes, sickles, harrows, rakes, shovels, pick-axes, spades and mattocks, for agricultural purposes; chloride, sulphide, bisulphide and trisulphide of lime; cork, in the rough or in sheets; crucibles of all materials and sizes; emery, in powder or in grain; glycerine, not perfumed; hyposulphate of soda; tin, in sheets up to 40 centimetres long by 30 wide, neither stamped nor painted; eggs; lettering, coats of arms, vignettes, type and other accessories for printing and lithography; books and printed music, bound in paper; hops; machinery and apparatus of all kinds, not otherwise distinguished, for industrial, agricultural, mining, artistic and scientific purposes, and detached parts of the same, if not liable to be used otherwise than as machinery; hay; newspapers and printed catalogues; fresh fish; ore; pumice stone; roofing slates, from two to three millimetres in thickness; horticultural plants and seeds; powder fuses of any kind and explosive compositions for mining; tower clocks for private or public buildings; saltpetre or nitrate of potash or of soda; soda, caustic; sulphate of copper; sulphate of ammonia; roofing tiles of clay, of all kinds; rags, paper scraps and pastes of all kinds, for the manufacture of paper; poison, for the preparation of furs.

TARIFF PROPER.

Articles, &c.		Dollars.
Cotton tissues:—		
Articles of cotton fabric, of all kinds, not embroidered, and not otherwise distinguished	Kilog. (legal)	1.60
Do., embroidered with any material other than silver or gold	Kilog. (legal)	2.25
Cotton lace and netting of all kinds, and all manufactures of these materials, even though ornamented with silk and any metal other than silver or gold, legal weight	Kilog.	6.00
Ruching of cotton, muslin, with or without cotton lace and small silk ornaments	Kilog. (legal)	4.30
Cotton yarn, of all kinds and colors, net weight	Kilog.	0.90
Cotton thread, of all kinds and colors, including the thread called "Crochet"	Kilog. (legal)	1.20
Shawl handkerchiefs or shawls, large or small, of cotton of all kinds, other than net, with or without fringe or embroidery of cotton or wool, net weight	Kilog.	1.80
Do., with or without embroidery of wool or cotton, and with fringe of silk and wool, or silk and cotton, net weight	Kilog.	2.50

		Dollars
Cotton tissues:—		
Elastic web of cotton and india-rubber, more than four centimetres wide	Kilog. (gross)	0.60
Clothing of cotton stuff ready cut in pieces for dresses of all kinds, except that elsewhere specified, net weight	Kilog.	1.70
Cotton tissues, unbleached or white, of all kinds, plain, not exceeding 30 threads in a half-centimetre square	Sq. metre	0.09
Do., of more than 30 threads	" "	0.11
Do., printed, dyed, or stamped, of all kinds, plain, not exceeding 30 threads in a half-centimetre square	Sq. metre	0.12
Do., do. exceeding 30 threads	" "	0.15
Linen and hemp tissues:—		
Carpets and rugs, solely of hemp, of tow, or any other unspecified vegetable fibre, plain, crossed, figured, or with uncut pile	Sq. metre	0.25
Do., with cut pile	" "	0.35
Shirts and night shirts, not embroidered, of all kinds, sizes, and colors, net weight	Kilog.	3.80
Do., embroidered, net weight	"	7.00
Linen lace and netting of every kind, and all manufactures, even though ornamented with silk or with metal other than gold or silver, legal weight	Kilog.	9.00
Thread of unbleached or colored hemp, fine or common, including that half-twisted, of all sizes. in balls and skeins	Kilog. (legal)	0.13
Thread of linen or hemp, white or colored, on reels, including glacé thread for *rebozos*	Kilog. (legal)	2.00
Linen shirt fronts, plain or embroidered, net weight	" "	6.00
Elastic web of linen or hemp, more than four centimetres wide,	Kilog. (gross)	0.70
Clothing of linen stuff, cut out in pieces, for dresses of all kinds, not otherwise distinguished, net weight,	Kilog.	1.90
Tissues of linen or hemp, unbleached, white, or colored, of all kinds, not plain	Sq. metre	0.22
Woollen tissues:—		
Tissues, unenumerated, of all kinds, not embroidered	Kilog. (legal)	2.25
Do., embroidered with any material other than silver or gold	Kilog. (legal)	3.50
Woollen lace and netting, and all manufactures of these materials, even though ornamented with silk or metal other than gold or silver, legal weight	Kilog.	8.00
Ruching of *mousseline de laine* with or without woollen lace and small silk ornaments	Kilog. (legal)	5.50
Shawl handkerchiefs or shawls, large and small, of wool, of all kinds, not netted, with or without woollen embroidery, and with or without fringe of wool, silk and wool, or silk and cotton, net weight	Kilog.	3.50
Do., with borders, squares, or silk embroidery, and with fringe of any material, net weight	Kilog.	5.50
Elastic web of wool, of more than four centimetres in width,	Kilog. (gross)	0.80
Woollen tissues of all kinds, weighing up to 100 grammes per sq. metre, net weight	Kilog.	2.75
Do., from 100 to 250 grams, net weight	Kilog.	1.50
" " 250 " 450 " " " "	"	3.00
" " 450 " 600 " " " "	"	2.50
" more than 600 grams the sq. metre, net weight	"	2.00
Silk and silk tissues:—		
Umbrellas, sunshades and parasols, of silk, or of silk with an admixture of cotton, linen, or wool, of all kinds	Each	1.75
Raw silk of all kinds, net weight	Kilog.	2.00
Silk, with an admixture of other materials:—		
Rosettes of silk, or silk and cotton, or silk and wool, with metal ornaments, other than gold or silver, net weight	Kilog.	5.44
Silk nets, with an admixture of india-rubber, or of cotton and india-rubber, net weight,	Kilog.	4.40
Elastic web of silk and india-rubber, or of silk and india-rubber with an admixture of cotton, linen, or wool, more than four centimetres wide	Kilog. (gross)	1.10

Articles of food:—		Dollars
Spirits of all kinds, in bottles, without allowance for breakage or leakage, net weight	Kilog.	0.50
Do., in wood, net weight	"	0.40
Cacao of all kinds, net weight	"	0.16
Cinnamon of all kinds, including "Cassia," net weight	"	1.00
Preserves, pickles, mustard, and sauces, not otherwise distinguished, legal weight	Kilog.	0.25
Sweets of all kinds, not otherwise distinguished, legal weight	Kilog.	1.00
Fruits in brine	Kilog. (gross)	0.06
Fruits preserved in their own juice, in sirup, or in spirits, legal weight	Kilog.	0.50
Cordials of all kinds, in bottles or wood, without allowance for leakage or breakage, net weight	Kilog.	0.25
Salt, common or for table use, gross weight	"	0.03
Tea, green or black, of all kinds, net weight	"	0.50
Red and white wine, in the wood, without allowance for leakage or breakage, net weight	Kilog.	0.12
Do., in bottles	"	0.20
Earthenware, etc.:—		
Manufactures of alabaster, marble, or stucco, not elsewhere specified, gross weight	Kilog.	0.20
Manufactures of plaster of Paris or clay, not elsewhere specified, gross weight	Kilog.	0.15
Bricks, other than fire bricks	Thousand	1.80
Stone mosaics for pavements, gross weight	Kilog.	0.10
Whet-stones and flints, gross weight	"	0.05
Gypsum, gross weight	"	0.10
Iron and steel:—		
Steel in the rough, excepting mining bars, net weight	Kilog.	0.05
Manufactures of iron, steel, or tin, not otherwise distinguished, gross weight	Kilog.	0.20
Manufactures wholly of iron or steel, not elsewhere specified, exceeding 20 kilos. in weight, gross weight	Kilog.	0.10
Iron nails, wire nails, screws, nuts and rivets	"	0.10
Iron in the rough, round, flats, stamps, dies, sledges and anvils, of different shapes, gross weight	Kilog.	0.05
Iron furniture of all kinds, with or without marble tops or mirrors, gross weight	Kilog.	0.20
Copper and its alloys:—		
Manufactures of copper, brass, or bronze of all kinds, not elsewhere specified, gross weight	Kilog.	0.30
Manufactures of copper, brass or bronze, or any common metal, gilt or plated, gross weight	Kilog.	1.80
Do. nickeled, not otherwise distinguished, gross weight	"	0.70
Hollow wire and other articles of wire-drawn work of yellow metal, not gilt or plated, gross weight	Kilog.	1.20
Copper in plates or sheets, gross weight	"	0.15
Brass furniture of any kind, with or without marble tops or mirrors, gross weight	Kilog.	0.30
Powder of any metal, for bronzing, gross weight	"	1.80
Zinc, lead, etc.:—		
Wire, of white metal, not plated, from No. 20 (Birmingham measurement) upwards, gross weight	Kilog.	1.00
Manufactures of zinc, of all kinds, gross weight	"	0.20
Manufactures of pewter or white metal, gross weight	"	0.40
Block tin, in bars, or in the rough, gross weight	"	0.10
Do. in plates, sheets, and other manufactures, not elsewhere specified, gross weight	Kilog.	0.20
Plated ware, or German silver, in sheets, gross weight	"	0.20
Lead in the rough, and in pig, shot, or sheets, gross weight	"	0.05
Zinc sheeting, gross weight	"	0.07
Fancy goods:—		
Spectacles and lenses of all kinds, set in any metal other than silver or gold, gross weight	Kilog.	1.25
Cane, for furniture, gross weight	"	0.10
Blacking and varnishes, in pastes or liquid, for shoes or harness, gross weight	Kilog.	0.20
Ivory billiard balls, gross weight	"	4.00

		Dollars
Fancy goods:—		
Paint brushes of all kinds, gross weight	"	0.20
Paint boxes of all kinds, gross weight	"	0.25
Shoemaker's bristles, gross weight	"	0.10
Coral, wrought or unwrought, gross weight	"	3.00
Fine sponges, gross weight	"	1.50
Matting of hemp, cocoa, tow, or China-matting, gross weight	"	0.20
Pencils of all kinds, gross weight	"	0.10
Wafers of all kinds, gross weight	"	0.75
Machinery and apparatus:—		
Apparatus of silk materials, other than india-rubber or gutta-percha, for medicinal or surgical purposes, legal weight	Kilog.	1.00
Hand-mills for all purposes, gross weight	"	0.15
Carriage work:—		
Sets of front wheels, for carriages, with their axles, etc., gross weight	Kilog.	0.60
Single wheels, for carriages, gross weight	"	0.60
Arms, powder and amunition:—		
Powder, other than that for mining purposes, gross weight	"	1.00
Paper, cardboard, etc.:—		
Books bound in velvet, mother-of-pearl, ivory, tortoise-shell, gutta-percha, wood composite, or metal, other than gold or silver, gross weight	Kilog.	1.20
Leather work:—		
Gloves of leather, of all sizes, plain or embroidered, when not lined	Kilog (legal).	4.50
Do. lined	"	2.72
Buckles covered with leather, gross weight	Kilog.	0.25
Drugs and chemical products:—		
Fixed oils, not elsewhere specified, legal weight	"	0.50
Essential oils, of orange, geranium, nutmeg, mustard, patchouli and rose, legal weight	Kilog.	5.00
Volatile or essential oils, not otherwise distinguished, legal weight	Kilog.	2.50
Soccotrine aloes, legal weight	"	0.30
Acids of all substances, gaseous or liquid, not elsewhere specified, legal weight	Kilog.	0.20
Acids in crystals or powders, not elsewhere specified, legal weight	Kilog.	1.00
Waters, aromatic, manufactured, distilled, or spirituous, for medicinal or toilet purposes, legal weight	Kilog.	0.50
Mineral waters, natural or artificial, legal weight	"	0.10
Alkaloids and their salts, not otherwise distinguished, legal weight,	Kilog.	15.00
Camphor, legal weight	"	0.50
Musk, legal weight	"	10.00
Ambergris, legal weight	"	16.00
Metallic antimony, net weight	"	0.30
Saffron, dry or in oil, net weight	"	4.00
Cantharides, net weight	"	2.00
Medicinal capsules, of all substances, legal weight	"	1.25
Castoreum, legal weight	"	4.00
Hydrochloral, legal weight	"	1.50
Chloroform, legal weight	"	1.50
Chloride of gold, legal weight	"	25.00
Collodion and its applications, legal weight	"	1.00
Paints in the rough or prepared	Kilog. (gross)	0.10
Creosote, legal weight	Kilog.	1.00
Medicinal elixirs of all kinds, legal weight	"	1.00
Essence or extract of sarsaparilla, prepared in any form, legal weight	Kilog.	0.30
Extracts of all kinds for medicinal purposes, not otherwise mentioned, legal weight	Kilog.	3.00
Phosphorus, clear or red, legal weight	"	0.75
Medicinal sirups of all kinds, legal weight	Kilog. (gross)	0.50
Metals and metalloids for medicinal purposes, not otherwise mentioned, net weight	Kilog.	1.50
Nitrate of silver, legal weight	"	8.00
Pepsin, legal weight	"	3.00

Drugs and chemical products:—		Dollars
Salts and sulphates, of all substances, not otherwise mentioned, legal weight	Kilog.	0.15
Valerianates, of all substances, legal weight	"	6.00
Idoform	Kilog. (gross)	8.00
Pure iodine	"	1.50
Iodides, of all substances	"	2.00
Miscellaneous articles:—		
India-rubber belting, imported separately from the machinery, gross weight	Kilog.	0.10
Wax of all kinds, net weight	"	0.50
Cushions, mattresses and pillows, of all materials other than silk, gross weight	Kilog.	0.50
Do. of silk, or of stuff with an admixture of silk, gross weight	"	3.00
Artificial flowers, and feathers for ornaments, of all materials other than silk, metal, glass, or porcelain, legal weight	Kilog.	3.00
Do. of silk, or silk with an admixture of other material, legal weight	Kilog.	7.00
India-rubber shoes of all shapes and sizes, india-rubber fabrics, and cushions for billiard tables, gross weight	Kilog.	0.48
Beaver fur, of all kinds, net weight	"	3.00
Human hair, manufactured, or otherwise, net weight	"	10.00
Hats, of all kinds, not otherwise distinguished, with trimmings, and with or without ornaments of any material	Each	1.00
Hats, of all kinds and materials, not made up and without trimmings	Each	0.50
Hats, of esparto grass, with or without ornaments, for boys and girls	Each	0.20
India-rubber covered fabrics, suitable for clothing, or any other similar use, gross weight	Kilog.	0.80

There is an export duty on precious woods of $1.50 per ton, Mexican measurement. It is collected, however small the quantity of wood taken by a vessel.

INTERNAL TAX.—On the 29th of January, 1885, the national government decreed the establishment of an "interior-revenue-stamp tax," as follows:

1. One-half per cent. on the value of all purchases and sales of merchandise, whether at wholesale or retail, wheresoever made in the republic.

2. One-half per cent. on the value of the following: Of sales and re-sales of country and urban real estate; of exchange of movable and immovable property; of mortgages; transfers of gifts, under gratuitious or obligatory title; of collateral or bequeathed inheritances; of bonds, when executed in a public instrument; of rents of farms, when the rent exceeds $2,000 annually; of contracts entered into with the government of the union, with that of a state, or with any municipal government.

3. Eight per cent. on foreign wines, brandies and liquors, and also, on the duties paid by them upon their importation, in addition to ½ per cent. on retail sales.

4. Three per cent. on the value of the sales made by manufacturers, producers, or store-keepers, on national wines, brandies, liquors, and also, at wholesale, remaining, besides, subject to the ½ per cent. tax on retail sales.

5. Manufactured tobacco, snuff, and national playing cards to be taxed as follows: Common cigars of the country, ¼ cent. for every 80 grams or less. Cigars cut off at both ends, ⅓ cent for every 60 grams or less. Perilla cigars, for every box of 25 to 50 cigars, 10 cents. The same for every box of 51 to 100 cigars, 20 cents. The same for every box from 101 up. For 500 cigars, 50 cents. Single cigars for 5 cents ¾ cent; for every 3 cents, ¼ cent. Tobacco plug and snuff, for every 80 grams, 1 cent. Tobacco in shreds, for every 60 grams, 1 cent. Tobacco sifted or minced, for every 100 grams, ⅓ cent. Foreign manufactured tobacco pays double these amounts.

National playing cards, for every package up to 50 cards, 2 stamps, including the two ends of the wrapping, 50 per cent. Upon the price of sale at retail foreign cards double the above.

6. Four per cent. upon the proceeds of passage on city railroads.

7. Two per cent, upon the amount paid for entrance to every public entertainment.

Domestic products sold for export, and articles of chief necessity sold by persons whose capital does not exceed $300, are exempted from the tax.

Under the treaty of amity, commerce and navigation existing

between the United States and Guatemala, the vessels of either nation are admitted into the ports of the other on the same footing as national vessels. The coasting trade is reserved to the national flag.

Imports into Guatemala in vessels of the United States, or into the United States in Guatemalan bottoms, whether of the growth or manufacture whose flag covers the goods, or of any other country, are placed on the same footing, as to duties, as similar goods imported under the national flag. If the articles imported into Guatemala are the growth or manufacture of the United States they are subject to no higher duty than similar goods the growth or manufacture of any other foreign country. This privilege is also accorded to articles of the growth or manufacture of Guatemala imported into the United States. A treaty of friendship, commerce and navigation, together with a consular convention, entered into by Guatemala with Germany, was ratified by the Guatemalan assembly on the 8th of November, 1887. I am informed that it contains stipulations not to be found in any treaty of the United States with any foreign power. All its advantages are practically on the side of Germany.

PORT AND CUSTOMS REGULATIONS OF GUATEMALA.—Vessels shall not have communication with the shore until they have been visited by the authorities. The penalty for allowing persons or goods to be taken on board or landed previous to that visit is $50 in each case. At the time of said visit the master must deliver his ship's articles, an exact list of the passengers on board, and the mails. After this, the passengers and their baggage will be allowed to land. An employé of the customs will remain on board until the master hands him a manifest of the cargo. This delivery must take place within 12 hours after the first official visit, or in lieu of the manifest the original bills of lading. The manifest in duplicate must be in Spanish; none other will be received. It must be signed by the captain, and express the name of the vessel, her nationality, tonnage, number of crew, port of departure, packages composing the cargo, including cargo in transit, with their respective marks and numbers, the class of goods, names of the consignees, and list of stores. The master or the consignee may correct any mistakes in the manifest, within twelve working hours from the delivery of the original.

Should a vessel have cargo in transit, and the master desire, after manifesting it in transit, to sell it or leave it behind, he must form a second manifest like the former one.

Should the manifest of a vessel's cargo not be delivered within the time specified, the harbor master shall order her to weigh anchor and sail forthwith. If the master engages to produce the documents within three hours, he will be allowed to do so, but is fined $50.

Foreign merchant vessels putting into Guatemalan ports in distress are allowed to remain only the time necessary to effect repairs; they must produce manifests, and conform with the requirements of the harbor master and collector of customs.

The regulations, in Spanish, French, English and German, are left with the masters of merchant vessels, in order that they may know the obligations imposed upon them by law.

Loading and unloading, excepting on holidays, begin daily at dawn, and continue till 5 P. M. The day may be extended in urgent cases, by special permission. The master must send in each lighter leaving his vessel, a list of the packages sent, with their marks and numbers. Damaged vessels may tranship their cargoes.

Powder or other war material, or prohibited articles, must not be landed without an especial permit. As a general rule, nothing can be taken in, or sent out, nor the vessel moved, without permission of the authorities.

Port charges on vessels at Guatemalan ports: Anchorage fee $2, not to be levied in other ports of the republic. From this tax are exempted ships of war, vessels under 25 tons register, or vessels putting into ports because of stress of weather, or damage, or of being chased by an enemy. Tonnage: per ton register, 25 cents. Exempted are war ships and foreign vessels in ballast, intending to ship native produce, even if they land 10 tons of goods; also vessels landing or transhipping precious metals in bullion or coined.

Tonnage and anchorage dues must be paid at the first-class ports, before a vessel can be allowed to proceed to a second-class one. The tonnage money can be collected only once, though a vessel may visit several ports to complete loading or discharging, unless she remains more than 30 days at sea, in which case she must pay again on her return. Harbor master's fees: for each person of the vessel's crew, the master inclusive, 25 cents.

TARIFF OF IMPORTS.—Import dues are levied upon nearly all merchandise imported in Guatemala. They have varied from 72 to 102 per cent. upon the appraisement for merchandise in general; from 25 to 50 per cent. on threads, leather, carriages, pianos, etc.; 10 per cent. on machinery, books, and useful articles for public instruction, industry, and agriculture, fine jewelry and the like. On liquors, a tax is levied of 25 to 45 cents per bottle, of pure spirits of 20 degrees of Baumé distilled in the country.

Under Article XIII of a decree issued on May 29, 1886, for the conversion of the home debt, the increase of duties, 20 per cent., which had been ordered on the 23d of October, 1885, was repealed. Article XIV of that decree provided that one-third of the duties shall be paid in cash, one-third in notes, payable at the expiration of two months from the date of issuing the notes; for the other third importers are allowed a credit of six months. The export duty existing on domestic wines was abolished, together with all taxes which had been levied on home viticulturists and manufacturers of wines. This measure was given twenty years' duration. Another clause abolishes for ten years the octroi duties and the export duty on coffee, furthermore granting to coffee exporters a bounty of 50 cents a quintal, payable to them three months after the date of shipment. On the other hand, a decree of July 30th, 1886, reëstablished an extra duty of 15 per cent. on all goods existing in public warehouses, and thenceforth on all imports.

The port charges of a vessel in the port of San José are as follows: tonnage dues, 25 cents per ton; a ship of 1,200 tons is required to pay $7.50; license $5.50; use of pier, $16; agency for transacting the ship's business, $32. The vessel must bring her ballast. Water is very dear and difficult to get.

Honduran vessels are placed at the ports of the United States on the same footing as those of the latter, with respect to duties, imposts, and charges.

Upon the arrival of a vessel at a port of Honduras she is visited by an officer of the customs, who demands her clearance from the port of departure, and information on the nature of her cargo. The master must produce within twenty-four hours a manifest in triplicate of the cargo to the chief officer of the custom house.

The port charges at Honduran ports are about as follows, the items given being for Omoa: Clearance and manifests, $2; tonnage dues, 25 cents per ton register for vessels of 150 tons and upwards. A ship of about 610 tons, taking 725 tons of fustic, would have to pay about $700. Import dues on merchandise, 40 per cent. ad valorem. Lumber, bricks, and machinery are free.

The treaty existing between Salvador and the United States stipulates that the vessels of either nation, no matter where they come from, or how laden, shall be treated at the ports of the other, as regards tonnage, light dues, or any other charges whatsoever, as national vessels. The coasting trade has been reserved to the national flag. Any favors granted to any other foreign nation by either of the contracting parties, will apply equally to the other. With respect to import duties, imports into Salvador on vessels of the United States, no matter whence the merchandise came, or what its origin is, must be subjected to the same duties, charges, and fees, as similar imports in vessels of Salvador; and if these imports consist of articles, the growth, produce, or manufacture of the United States, they cannot be made to pay higher or other duties than other similar imports, the growth, produce, or manufacture of any other foreign country. The same rules apply in ports of the United States to imports on Salvadoran vessels.

The only port charges levied on vessels in ports of Salvador are 10 cents per register ton, and an entry fee of $5 to $15. The principal sources of revenue were the customs duties, and the taxes on spirits. The tariff of imports was quite moderate till 1885. In March of that year the government decreed an increase of 20 per cent. of the import duties, payable in gold. Then, on the 7th of July, by another decree, it dispensed with the formality of legalization

of invoices and manifests abroad for ports of Salvador. On June 1st, the export duty on coffee of 12½ cents per 100 lbs. was abolished.

Nicaragua is entitled by treaty with the United States to have her ves els and their cargoes treated at the ports of the latter on the footing of the most favored nation. This stipulation is equally applied to American vessels in Nicaraguan ports.

The port charges payable by vessels in Nicaraguan ports are the following: tonnage duty, 10 cents per ton; custom-house fees, for vessels discharging only $5.25, and for vessels discharging and loading, $15.25. In Corinto, the broker's charge for entering and clearing a vessel, $16; pilotage, per foot draught, $3; lighterage, $1 per ton put into the warehouse; in San Juan del Sur, the charges are the same as at Corinto. In San Juan del Norte the expenses of a vessel of 230 tons are set down at $53.50. Water is abundant and good at $1.50 per cask. San Juan del Norte, otherwise known as Greytown, is a free port, the town being entirely dependent on the profits accruing from the carrying trade, and from the exportation of India-rubber, which is in fact the only article of export. A large portion of the carrying trade has been diverted to other channels, because of the rapid silting up with sand of the river and harbor. The export of India-rubber has greatly diminished, because by injudicious and excessive bleeding of the trees, a large number of them have perished. The custom house for entering goods going into the interior of the republic is at Castillo, 70 miles up the river. Import dues at San Juan del Sur, 5 per cent. No export duties.

Costa Rica and the United States have a treaty which places the vessels and cargoes of either country on the footing of the most favored nation at the ports of the other. But in Costa Rica, rum, fire-arms, and munitions of war cannot be imported without a permit from the Costa Rican government, previously obtained. Tobacco, gunpowder, and saltpetre can be introduced only on government account.

The existing tariff of imports was adopted by the national government in September, 1885. It establishes a specific duty per kilogram, dividing the articles imported into ten classes.

Colombian vessels and their cargoes enjoy, in ports of the United States, all the privileges that are accorded to those of the most favored nation. The stipulations are reciprocal.

PORT REGULATIONS. The captains of foreign vessels must deliver their papers to their respective consuls, and obtain from these a certificate to that effect, which certificate must be produced at the custom house within 48 hours. Vessels from foreign ports must have their manifests certified by the Colombian consul, or if there be none, by the consul of a friendly nation; if there be no consul, then by two respectable merchants. The manifest must give the number of each bill of lading, shipper, marks and numbers, packages, class of merchandise, consignees, gross weight, and freight. Goods of one class, where possible, should be packed together. Quarantine is strictly observed.

The following are the usual port charges payable by vessels: tonnage dues, $1 for every ton of 1,000 kilograms of cargo landed; at Santa Marta, besides the above, pilotage from $5 to to $10; harbor dues, $6 per vessel; light dues, 2½ cents per ton; vessels coming from another port of the republic pay only half the light dues. Mail steamers are exempt from port charges. The expense of a vessel of 500 tons discharging at Santa Marta, and sailing in ballast, are about $1025. At Cartagena, pilotage is included in the tonnage dues. Water is scarce and worth $1 per ton. Foreign vessels of 250 tons, loading wood at Rio Hacha, pay about $280 for all expenses. At Panamá, no pilot being needed, no pilotage need be incurred. The port being free, there are no tonnage dues to pay. Wharfage ranges from 75 cents per day for vessels under 50 tons, to $3.75 for vessels exceeding 50 tons to and over 350 and under 400 tons; and 25 cents per day for each additional 50 tons. Light money, from $1 for vessels under 100 tons to $7 for over 300 tons. At Colon, which is also a free port, there is no tonnage duty to be paid. Vessels, however, have to pay the following charges: light dues: under 200 tons, $3; under 300 tons, $5; and over 300 tons $7 per vessel. Wharfage: vessels of 200 to 250 tons, pay $3 per day,

and for every 50 tons register over 250 tons, 25 cents additional per day. Vessels using the railroad company's donkey engine or mules are charged $10 per day for hoisting cargo; and 20 cents per ton for discharging coal. Vessels are not allowed to hang at the outer buoys; these are solely intended for vessels to haul in and out of port. Vessels on entering are visited by the harbor-master, who assigns them berths; and after discharging must anchor outside the buoys; steamers and regular traders excepted. Pilotage: from $15 to $30, according to size. Ballast: the cost is $2 to $2.50 per ton. Labor: $1.50 per day. There is neither dry-dock nor tow-boat at this port. There is facility for repairing machinery.

The tariff which went into operation on the 1st of October, 1886, ranges the import duties from one cent to $1.20 per kilogram. The free list includes articles for the use of the government, property of representatives of foreign governments, and the natural productions of such countries as may enter into the reciprocal treaties with Colombia. The importation of money of inferior standard is forbidden; also of machinery for making money, arms, and munitions of war. Machinery weighing more than 1,000 kilograms pays one cent per kilogram; not exceeding that weight, five cents per kilogram. The extra war duty of 15 per cent. on goods consumed in the department of Bolivar since 1878, was on January 1st, 1886, reduced to 10 per cent. The extra 50 per cent. levied on internal taxes in the same department, as a war tax, was abolished.

Customs Tariff of Colombia.

NOTE.—Kilogramme—2.204 lbs. avoirdupois. Peso, 4s. 2d.

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Articles of food:—		
Potatoes, onions, corn, rice, peas, beans and all kinds of vegetables and fresh fruit	Kilog.	0.01
Garlic	"	0.05
Flour, including sago, arrowroot, tapioca, corn meal and all similar products	Kilog.	0.05
Codfish and salt meats, and fresh fish and meats	"	0.05
Sugar	"	0.05
Hazel nuts, nuts and almonds in the shell, and all unprepared food not otherwise distinguished	Kilog.	0.10
Vermicelli and similar preparations	"	0.10
Prepared food, such as motadelas, salmon, hams, sweetmeats, confectionery, preserved and dried fruits, etc., and all pickles and condiments not specially distinguished	Kilog.	0.20
Olives in barrels	"	0.10
Tea	"	0.70
Cinnamon	"	0.30
Saffron	"	1.20
Anise-seed	"	0.20
Ice	"	1.00
Salt	12½ Kilos.	1.20
Liquors:—		
Beer and other fermented liquors	Kilog.	0.05
Barley, must, and other articles, fermented or unfermented, liquid or solid, for making beer	Kilog.	0.02½
Red wine, common, in pipes, barrels and demijohns	Kilog.	0.02½
White wines, sweet and dry, in pipes and barrels	"	0.05
All other wines	"	0.40
Spirituous liquors, such as brandy, rum, gin, whisky, rosolis, etc. and all condensed liquors for making the same	Kilog.	0.40
Other liquids:—		
Vinegar in barrels	Kilog.	0.05
Olive oil	"	0.10
Linseed oil for preparing paints	"	0.10
Writing ink, black	"	0.05
Writing ink, other colors	"	0.10
Printers' ink, liquid and solid	"	0.01
Liquid, except perfumery and others specially mentioned	"	0.20
Cotton:—		
Grey cotton tissues, without brocade or seams	Kilog.	0.40

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Cotton:—		
Blue salampores and white shirtings or greys with white spots without color, printing, seams, or embroidery, such as those known by the names of *bogotanas*, calicos, *liencillos*, madapolams, croydons, etc.	Kilog.	0.50
Drills and other cotton tissues, white or colored, not otherwise mentioned	Kilog.	0.60
Quilts, Marseilles and brocade, not included in any other category, and cords, tapes and ribbons	Kilog.	0.70
Shawls, with or without woolen fringes	"	0.60
Handkerchiefs, with or without common embroidery, ponchos, or stuffs from which made	Kilog.	0.80
Stockings and all kinds of hosiery, such as undershirts, drawers and gloves, muslins and lawns of all kinds, damasks, table-covers, and hammocks; and ready-made clothing without embroidery, lace, or ornamentation included in categories subject to a higher duty.	Kilog.	0.90
All kinds of embroidered work or Swiss muslins or imitations thereof, including laces, insertions, etc., and ready-made clothing, not otherwise mentioned	Kilog.	1.20
Sewing-thread, white	"	0.40
Sewing-thread, colored	"	0.60
Fringes, woolen tapes, cords, tassels, and other similar articles.	"	0.90
Wicks for lamps and tinder	"	0.20
Wicks for candles and matches	"	0.10
Bridle-reins	"	0.20
Hemp and Flax:—		
Empty bags made of hemp and similar materials	Kilog.	0.02½
Osnaburghs, *coleta*	"	0.10
Common, unbleached cloth, such as crehuelas, brown hollands, sail and tent canvas, with the exception of drills	Kilog.	0.80
White and printed crehuelas	"	0.40
Fine unbleached cloth, with the exception of drills and other articles specified elsewhere	Kilog.	0.60
Unbleached drills, white or colored creas, platillas, diapers, stuff for making table-cloths, napkins and towels, bed-covers, stuff for mattresses, tapes, sheeting, and similar materials not otherwise mentioned, provided they have no seams or embroidery of any kind	Kilog.	0.80
Handkerchiefs, caps, stockings, gloves, britannias, coquillo, estopillas, picardias, Irish linens, lavales, batists and printed stuffs in imitation of cotton, fringes, tapes, tassels and similar goods, ready-made clothing without embroidery or lace or any other trimming which may subject the goods to higher duties	Kilog.	1.00
All kinds of embroidered stuffs or lace-work and imitations thereof, including lace, insertions, &c., and ready-made clothing not otherwise provided for	Kilog.	1.20
Thread and yarns	"	0.40
Tarred cordage and cables	"	0.05
Cordage not distinguished	"	0.20
Varnished matting for floors and oil-cloth for carriages, not including that used as table covers	Kilog.	0.20
Wool:—		
Unmanufactured	Kilog.	0.05
Blankets	"	0.50
Yarns	"	0.60
Carpets and rugs	"	0.70
Baize, frieze and flannels	"	0.90
Light fancy goods for dresses, all kinds of embroidered or lace work, and imitations thereof, including laces, insertions, etc., and ready-made clothing	Kilog.	1.20
All other materials not otherwise distinguished	"	1 00
Silk :—		
Threads	Kilog.	1.20
Brocades and other tissues embroidered with gold, silver and other metals, also metal threads	Kilog.	1.20
Articles made of horse-hair and other materials not otherwise mentioned	Kilog.	0.60

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Oil-cloths for furniture and table-cloths not otherwise distinguished	Kilog.	0.60
Samples, not exceeding 25 kilogrammes in weight		Free.
Articles made of several materials pay the duty applicable to the component material of chief value		—
India-rubber:—		
Unmanufactured	Kilog.	0.40
Shoes and boots of all kinds, life-preservers, materials for making leggings (*zamarros*), and water-proof cloaks (*ruanas*), without silk or wool	Kilog.	0.80
Pipes and hose for pumps, drains and roofs, material prepared for machinery and flooring, excepting pipes for fire engines, which pay 1 per cent. per kilog	Kilog.	0.05
Corks and bottle-stoppers	"	0.10
Elastics for shoes	"	0.60
Uncovered buttons	"	0.40
Manufactured in any form not otherwise distinguished	"	1.00
Hides, skins and leather :—		
Unmanufactured, except as patent leather	Kilog.	0.20
Patent leather, unmanufactured	"	0.30
Shoes	"	1.00
Gloves, caps, furs for trimming, pocket-books, cigar-cases, pouches, etc.	Kilog.	1.20
Manufactured in any shape not otherwise distinguished	"	1.00
Harness for carts and carriages	"	0.10
Earthenware:—		
Earthenware and stoneware in any form	Kilog.	0.10
" " in porcelain and talavera	"	0.20
Pots or pans, empty bottles and common crockery	"	0 02½
Tubes for pumps, drains and roofs	"	0.05
Crystal and glass:—		
Demijohns and common bottles of black glass, or of light-colored glass for liquids	Kilog.	0.01
Flasks and vials of common glass for liquids	"	0.02½
Plain glass, not quicksilvered	"	0.05
Looking glasses, not exceeding 25 centimetres	"	0.20
" " exceeding 25 centimetres	"	0.40
Beads, pearls, quills, bugles, trinkets and jewels, glasses for watches and spectacles, etc.	Kilog.	0.60
Glass, manufactured, in any other form not otherwise distinguished	Kilog.	0.20
Wax :—		
White, yellow and laurel colored, not manufactured	Kilog.	0.30
Manufactured in candles and other forms	"	0,40.
Spermaceti, not manufactured	Kilog.	0.20
" manufactured in candles, etc.	"	0.30
Stearine and paraffine, not manufactured	"	0.05
" " in candles, etc.	"	0.20
Tallow, raw	"	0.01
Tallow or other candles, not otherwise mentioned	"	0.20
Stearic acid	"	0.01
Petroleum	"	0.10
Wooden matches	"	0.20
Wax matches	"	0.60
Drugs and medicines:—		
Common, not otherwise mentioned	Kilog.	0.30
Sulphur and alum	"	0.20
Sulphuric acid and saltpetre,	"	0.05
Potash and caustic soda, the ashes and salts of soda, pine-resin, and the subcarbonates of potash and soda	Kilog.	0.02½
(The term "medicines" comprises all articles used in sickness, such as trusses, braces, etc., but not pots and utensils of earthenware, etc., used by druggists, nor surgical instruments, etc., and other similar articles which pay according to their respective categories.)		

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Perfumery and soap:—		
Florida, Divina, and Kananga waters	Kilog.	0.30
All other articles of perfumery and for the toilet, such as essences, soaps, creams, razor-strops, tooth and clothes brushes, etc., not otherwise mentioned	Kilog.	1.20
Common oil soap	"	0.20
Common resin and tallow soap	"	0.05
Paper and cardboard:—		
Paper for periodicals, pamphlets, and circulars, white, without gum, and colored for printing	Kilog.	0.05
Brown and other common paper for wrapping and packing	"	0.05
Sand paper	"	0.05
Cigarette paper	"	0.05
Writing paper, envelopes, and similar materials not otherwise mentioned	Kilog.	0.20
Banknote paper (*florete*)	"	0.10
Paper, ruled for music	"	0.30
Blank books, ruled and unruled, and memoranda	"	0.40
Printed books	"	0.10
Pictures, maps, and engravings of all kinds, and music in manuscript or printed	Kilog.	0.40
Gilt or silvered paper	"	0.40
Wall paper and paper marbled or painted for bookbinding and other purposes	Kilog.	0.20
Cardboard for printing, bookbinding, lithography and other industrial uses	Kilog.	0.05
Cardboard, other	"	0.20
Wood:—		
Woods for building, such as poles and beams, sleepers for railways, quarters and boards not planed or polished, common woods, planed, and wood for cabinet work, planed or not, and unmodelled, with the exception of wood for veneering	Kilog.	0.01
Veneering	"	0.20
Mouldings, carvings and ornaments for furniture, and gilt and ungilt frames	Kilog.	0.30
Bedsteads, large dining tables, wardrobes and large presses for cloths or other uses, without mirrors, carvings, or inlaid work	Kilog.	0.05
Furniture of all kinds with mirrors, carvings, inlaid work, or woolen or silk upholstering	Kilog.	0.30
Furniture not otherwise specified	"	0.20
Note —(In the term "furniture" are not included mattresses, etc., which are imported separately.)		
Statues, images and altars for churches	Kilog.	0.20
Organs and pianos	"	0.10
Harmoniums, barrel-organs and harps	"	0.20
Other musical instruments	"	0.30
Pencils (for writing and for carpenters)	"	0.20
Moulds and rules (for mechanical purposes)	"	0.20
Bellows for furnaces	"	0.05
Bellows of all kinds, except for furnaces	"	0.20
Saddle-trees, uncovered	"	0.20
Buckets and bowls	"	0.05
Barrels, pipes and casks, mounted or otherwise, for dry goods and liquors	Kilog.	0.02½
Taps for barrels and pipes	"	0.05
Common wooden boxes, roughly made, mounted or not, for packing	Kilog.	0.02½
Small boards for match-boxes, and wood for matches	"	0.05
Cars and carriages for railways		Free.
Carts and wheelbarrows	Kilog.	0.02½
Coaches and carriages of all kinds	"	0.05
Velocipedes	"	0.40
Boats, mounted or not, intended for the navigation of the inland waters of the Republic	Kilog.	0.01
Oars for boats	"	0.05
Windows, doors, etc., imported separately	"	0.05

TARIFF CLASSIFICATION.		RATES OF DUTY Pa. Cs.
Wood:—		
Machinery for boats, mechanical, industrial, agricultural and mining purposes	Kilog.	0.05
Walking sticks	"	0.80
Wood, manufactured, in any other form, not distinguished	"	0.40
Empty sacks, made of sisal-hemp, with or without pitch or paper tarpaulin, and the material for making them	Kilog.	0.02½
Hay	"	0.01
Straw for making hats	"	0.05
Mace-reed, straw and common twigs, unmanufactured or in brooms	Kilog.	0.05
Baskets made of wicker-work	"	0.20
Mattings of all kinds	"	0.05
Iron and steel:—		
Iron, not manufactured	Kilog.	0.01
Rails and other materials for public railways		Free.
Rails not intended for public use	Kilog.	0.05
Boats or parts of the same	"	0.01
Anchors and grapnels for small boats	"	0.02½
Bridges for public roads	"	0.05
Gasometers, tubes and lamps, for public use		Free.
Telegraph wire for public uses		"
Telegraph wire for private uses	Kilog.	0.02½
Steel wire for fencing and staples and other articles used in fixing it	Kilog.	0.01
Railing for ornamenting public buildings and squares		Free.
Lightning conductors		"
Pipes for public drains and public fountains		"
Lanterns, etc., for lighthouses	Kilog.	0.01
Clocks for towers, including dials and bells	"	0.02½
Houses and galvanized tiles and plates for roofing the same	"	0.01
Balustrading for buildings, doors and windows, when imported separately	Kilog.	0.05
Fire-engines	"	0.01
Hydraulic pumps and engines with pumps and other parts of the same	Kilog.	0.05
Machinery for manufacturing and mining purposes	"	0.01
Machinery for agricultural purposes	"	0.02½
Machinery for mechanical and industrial purposes	"	0.05
Machinery not otherwise distinguished, and not exceeding 1,000 kilograms in weight	Kilog.	0.05
Machinery of every kind exceeding 1,000 kilos. in weight	"	0.01
Presses for bookbinding, printing, and lithography	"	0.02½
Tin plates	"	0.05
Large boilers	"	0.05
Water tanks	"	0.01
Ore crushers	"	0.05
Anvils and pulley-blocks	"	0.05
Ploughs	"	0.02½
Plates and rods not included under unmanufactured iron; bedsteads heavy chains, iron safes, nails and tacks, cooking utensils, lined or not with tin, smoothing irons and heavy tools for agricultural, quarrying and mining purposes, such as hoes, crowbars, shovels, axes, large augers, spades, stone hammers, picks, drills and hatchets and similar tools, etc., for felling timber	Kilog.	0.05
Tools for blacksmiths, stone-masons, carpenters and bricklayers	"	0.20
Lasts	"	0.20
Furniture and wire, rings, butts, hinges, screws and springs for the same	Kilog.	0.20
Tire-irons, wheels, axles, springs, &c., for carts and carriages	"	0.05
Levers, weights and steel-yards for weighing more than 100 kilograms	Kilog.	0.10
Ditto, for weighing up to 100 kilogrammes	"	0.20
Currycombs and brushes	"	0.20
Kitchen utensils and other articles, tinned	"	0.20
Knives, such as bookbinders' and shoemakers' knives	"	0.20
Cutlery, not otherwise distinguished	"	0.40

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Iron and steel:—		
Side-arms, fire-arms, etc., including guns	"	1.00
Pocket-knives and scissors, with hafts of ivory, pearl, electro-plate and Brittannia metal; gun tubes; beads, gilt or silvered; pencil-cases, jewels and all articles gilt or silvered, or made of German silver and electro-plate	Kilog.	1.00
Steel, in bars or rods, for manufacturing purposes, and drills	"	0.20
Iron and steel in any form, not otherwise distinguished	"	0.40
Copper and brass:—		
Copper or brass, not manufactured, in bars or ingots	Kilog.	0.10
Plates of every kind	"	0.10
Pans or boilers or other articles, the weight of which exceeds 25 kilograms	Kilog.	0.20
Articles weighing more than 500 grams but less than 25 kilograms	Kilog.	0.40
Articles weighing less than 500 grams	"	0.50
Jewellery, beads, tape, spangles, fringes, tubes, threads and similar articles and electro-plated articles and percussion caps	Kilog.	1.00
Statues for public buildings and squares		Free.
Tin:—		
Ingots	Kilog.	0.10
Plates and all other articles	"	0.40
Dust and sheets	"	0.50
Lead:—		
Ingots	Kilog.	0.10
Sheets, tubes and other articles, exceeding 5 kilograms in weight, shot, printing-type and ingots, not intended for mines	Kilog.	0.05
Toys and tin sheets	"	0.70
Covers for bottles	"	0.10
In any form not otherwise mentioned	"	0.40
Zinc:—		
Unmanufactured, in sheets or plates, including that used for roofing and in tubes	Kilog.	0.05
Manufactured in any other form	"	0.40
Quicksilver:—		
For mines	Kilog.	0.02½
For other uses	"	0.20
Gold:—		
In bars	Kilog.	0.02½
Coins not less than 90 per cent. fine		Free.
Manufactured in any other form	Kilog.	1.20
Silver:—		
In bars	Kilog.	0.02½
Coins not less than 90 per cent. fine		Free.
Manufactured in any form	Kilog.	1.20
Powder, coarse and common, for mines, in barrels or other packages, not exceeding 2 kilograms in weight	Kilog.	0.05
Gun-cotton (*tonito*), for mines	"	0.05
Fine powder (*mostacilla*), in cans or other packages, and all powders not included in the preceding categories	Kilog.	0.60
Fireworks	"	0.70
Stones, building and other raw materials:—		
Stone filters	Kilog.	0.02½
Lithographic, whet and pumice stones	"	0.05
Flints	"	0.10
Marble and jasper, in tiles and bricks	"	0.01
Ditto, not as tiles or lithographic stones	"	0.20
Roman cement, lime, gypsum, unmanufactured, or in powder, chalk, feldspar, silicon, massicot, caslin, bone in dust, and other raw material for crockeryware	Kilog.	0.01
Marble, in statues and monuments for ornamenting public buildings and squares		Free.
Slates for roofing	Kilog.	0.01
Clay tiles		Free.
Shingles	Kilog.	0.01

TARIFF CLASSIFICATION.		RATES OF DUTY Ps. Cs.
Stones, building and other raw materials:—		
Building materials, such as unwrought stone, bricks, and paving tiles made of burnt clay and stone		Free.
Gypsum, manufactured in any form not distinguished	Kilog.	0.10
Colored clay for building purposes	"	0.05
Alabaster, in any form	Kilog.	0.20
Crucibles for smelting	"	0.05
Live animals		Free.
Mineral coal	Kilog.	0.01
Pitch	"	0.05
Black tar, for ship building	"	0.00
Resin	"	0.01
Glue, common	"	0.20
Tow or rope yarn and felt for packing	"	0.05
Varnishes	"	0.20
Paints, in powder or prepared	"	0.20
Painters' brushes, common	"	0.20
Horse and blacking brushes	"	0.20
Blacking for shoes	"	0.20
Asphaltum	"	0.05
Seeds, shoots and graftings of plants and live plants	"	0.01
Guano	"	0.05
Hops	"	0.10
Tobacco, in the leaf and cut for cigarettes	"	0.10
" for chewing	"	0.30
" manufactured	"	1.20
Bones and horns, unmanufactured	"	0.05
Tubes, handles and pipes of wood, earthenware, clay, or metal, used for pumps, drains and roofing and not for fire-engines	"	0.05
Miners' fuses	"	0.05
Cork in sheets, bottle-stoppers, etc	"	0.10
Chemical and meteorological instruments	"	0.10
Common buttons made of bone, horn, vegetable ivory (*tagua*) and paste without covering	"	0.40
Common pearl buttons	"	0.60
Common horn combs	"	0.40
Slates and slate pencils for writing	"	0.05
Precious stones	"	1.20
Umbrellas	"	0.80
Hats, caps, bonnets, etc., will pay respectively as ready made clothing, according to the material of which composed, with the exception of those of straw		
Straw hats, etc., common	Kilog.	0.60
" " fine	"	1.20
Articles of any kind imported on account of the government		Free
Personal effects belonging to foreign public ministers or diplomatic agents accredited to the government, provided the nations to whom they belong accord the same privileges to Colombian ministers and diplomatic agents		"
The natural products of Ecuador, Venezuela and Perú and other nations with whom treaties exist		"
The luggage of passengers imported for their own use, on their arrival, not exceeding 150 kilos. in weight		"
Ditto, exceeding 150 kilos. in weight		The highest duties applicable to such articles, and levied on the excess weight
All articles not otherwise mentioned	Kilog.	1.00
Articles prohibited (except if imported on account of the government):—		
Canes, umbrellas, etc., in which swords, weapons, daggers, etc., are concealed, artillery cannons of every kind, metrailleuses of every kind, rifles, carbines and other military weapons, swords, sabres and cavalry lances, percussion caps, bullets, hand grenades and other amunition, rifles, guns, firelocks, muskets and other weapons not intended for sporting purposes, knapsacks, shoulder belts, and all descriptions of accoutrements for soldiers, and generally all war materials.		
Spurious coins and machinery for minting coins.		

The national legislative council resolved in the session of May 7th, 1888, to increase the duty on consular invoices, for more than 4 packages to $8; to authorize the government to lessen the import duties on materials for manufactories established, or that may be established; provided said materials cannot be produced in the country, and to pay up to $1,000, but only for once, to such persons who may come to establish themselves in the country with machinery

The following are the terms of a treaty signed in 1861 between Venezuela and the United States: Vessels of either nation, no matter from whence they come, or what the origin of their cargoes, are to be on the footing of national vessels at the ports of the other. The same equality, including bounties, duties, and drawbacks to apply to exportation, or re-exportation. Vessels of either nation shipwrecked, foundered, or in any other way damaged, on the coasts or within the dominions of the other, are to receive all necessary assistance and protection at the ports of the other. Whatever may be imported in the vessels of Venezuela at her ports may be also imported in American vessels, and vice versa, and on the same terms as to duties and all other charges. The same equality as to exports. Articles the growth, produce, or manufacture of the United States are subject in Venezuela to no higher or other duties, than similar articles the growth, produce, or manufacture of any other foreign country. All favors hereafter granted to foreign nations are to apply equally to the United States on similar conditions. These favorable terms apply equally to articles of Venezuela in the United States.

The following are the port regulations of the republic: Shipmasters arriving at Venezuelan ports must deposit at the custom house:

1st. The vessel's register.

2nd. A manifest of the cargo, expressing the vessel's name, tonnage, class, flag, ports of departure and destination, together with the number, marks, description of the goods on board, and the names of consignees.

3rd. A sealed envelope covering the original invoices certified by the Venezuelan consul. The consignees must also produce the original invoices duly certified. Copies of the manifest must be also delivered to the consul.

Charges at the several ports on vessels:—At Maracaibo: Tonnage dues, with cargo, 50 cents per Venezuelan ton; outward the same; vessels in ballast are exempt from tonnage dues; but if they depart loaded, they must pay 50 cents per ton. Light dues, 6 cents per ton. Pilotage, $4 per foot draught in and out. There is a pecuniary penalty for entering without a pilot; the vessel must take him on board in her own boat. Measuring, $3; interpreter's fees, $3 to $6; clearance, $50 in and out for vessels with cargoes; doctor's visits, $3, and bill of health, $3. An American vessel of 200 tons measures 350 tons at Maracaibo. At La Guayra: Tonnage and light dues the same as at Maracaibo. Sea Pass: Vessels of 100 to 200 tons $4; above 200, $5; harbor master's fee, $3; health visit, $3; interpreter's fee, $3; and $1 per page for translating the manifest; measuring, $3; bill of health, $1.25; hospital dues $2 per man; water dues 15 cents per ton, whether water is taken or not; water put on board, $1 to $1.50; discharging ballast, the harbor master being present, $3. Labor is 6s. 6d. to 8s. per day. At Puerto Cabello: Light dues, 6 cents per ton; wharfage, 2 cents per ton daily. The expenses of a foreign vessel of 200 tons, lading at this port would be nearly 320 Venezuelan dollars. At Angostura: Inward, interpreter's fee, $2; translation of manifest, $1 for every 24 lines; harbor master, $3; health officer, $3; tonnage dues, with cargo, 50 cents per ton; in ballast, none; light dues, 6 cents per ton; pilotage, $4 per foot of draught. Outward: Tonnage dues, with cargo, 50 cents per ton; pilotage, $4 per foot. License; vessel of 10 tons, $1; of 51 to 100 tons, $3; of 101 to 200 tons, $4; of 201 tons and upwards, $5. Wharfage at the following rates: Vessels of 40 tons, $4; of 41 to 69 tons, $8; of 70 to 119 tons, $15; of 120 to 180 tons, $25; of 181 tons and upwards, $40. Hospital fees: To the colonies, for each of the crew, 75 cents; to North America and Europe, ditto, $1.50. Light dues are collected since 1857, though there is no lightship.

The public revenue consists mostly of import duties on foreign merchandise, to which may be added interest, fines, and storage merchants have to pay by reason of such importations.

Customs Tariff of Venezuela.

The following is a statement of the rates of import duty now levied in Venezuela:

Note.—Bolivar=9 6.10-16d; Kilogram=2.204 lbs. avoirdupois.

Merchandise of foreign origin, which is introduced into the custom houses of the republic, is divided into the following nine classes:

1. Articles admitted free of duty.
2. Articles paying 10 centimes of the bolivar per kilogram.
3. Articles paying 25 centimes per kilog.
4. Articles paying 65 centimes per kilog.
5. Articles paying 1 bolivar 25 centimes per kilog.
6. Articles paying 2 bolivars 50 centimes per kilog.
7. Articles paying 5 bolivars per kilog.
8. Articles paying 10 bolivars per kilog.
9. Articles paying 20 bolivars per kilog.

(All duties are levied upon the gross weight.)

The following articles, which belong to class I. are admitted free of duty.

Live animals with the exception of leeches
Springs, boilers, gratings, rollers, and sets of iron sugar mills, and the axletrees or springs for the same
Ploughs, ploughshares, hoes, pick-axes, reaping-hooks, small turned spades, crowbars, weeding-hooks, hatchets, spades, "tasles," and cutlasses
Articles imported on account of the government
Apparatus and machinery for lighting with gas, and for producing it
Fishing-hooks
Fire engines
Coal, mineral
Roman cement
Carriages, utensils and materials intended exclusively for railroads
Personal effects brought by public ministers, and foreign diplomatic agents accredited to the government, and by the diplomatic agents of the republic upon their return to Venezuela
Luggage, effects, and used furniture belonging to Venezuelans who have resided more than 2 years in Europe or in the United States, and who are returning to Venezuela, provided they comply with the regulations of article 178 of the financial code
Baggage brought by passengers for their own use, with the exception of those articles that have not been used, and of furniture, which will pay according to the classes to which they belong
Geographical or astronomical globes, hydrographical or navigation charts, and maps of all kinds
Cheese, rennet extract
Ice
Guano
Eggs
Books, printed, unbound or stitched, treating of science, art and trade, catalogues, newspapers and copy-books
Printing presses and type, blocks, printing ink, and white printing paper without glue or gum
Machinery for use in agriculture, mines, factories, saw mills, founderies, the arts, or trade not otherwise mentioned
Telegraph machinery and apparatus
Steam engines of any kind, together with their accessories
Samples of cloth in strips not exceeding 25 kilograms in weight, and also of paper not exceeding 50 centimetres in length
Monumental statuary
Platinum or white gold, and unwrought gold or silver, and legal gold and silver coin
Living plants of all kinds, herbariums or collections of dry plants, not medicinal; seeds for planting, except potatoes
Produce of Colombia, imported by the frontier, provided the productions of Venezuela enjoy equal exemptions in that republic
Bridges, with their chains, floors, etc., intended for public use or agricultural purposes; otherwise they pay duty on material of which composed
Clocks for public use, when imported by the federal government
Springs, axletrees, hoops and cramp-irons for carts and carriages, to be constructed in the country
Coverings in which articles free of duty are imported, such as trunks, carpet-bags, port-folios, or stuff coverings, will be weighed separately and pay the duty applicable to each

The following articles belong to the second class, paying a duty of 10 centimes per kilog:

Sulphuric acid
Bran
Galvanized iron ware
Ochres, clay, potter's clay, Sienna earth, black earth for cleansing, "caput mortuum," and earth for building purposes
Tar, asphaltum, raw petroleum and bitumens of all kinds
Hoops of iron or wood for pipes, butts and sieves
Rice in husk
Oats
Iron bars, which may be used as tools
Common black glass or ordinary clear glass bottles for bottling liquors, and empty demijohns and square bottles used for importing Hollands
Hydraulic pumps, with their respective tubes and other accessories
Boats and lighters, whole or in detached pieces, and the oars, sails and anchors for the same
Pitch, red or black
Hydraulic lime, common lime, and any other material for building purposes, not included in any other class
Hemp or tow, raw or twisted, for caulking
Conduits or water pipes of iron or lead
Salted or jerked meat ("tasajo")
Pasteboard and tarred paper for roofing and other purposes
Carts, wagons and wheel-barrows
Barley in the grain
Wood ashes
Rye and wheat
Coaches, chaises, gigs, omnibuses, phætons, and every kind of carriage not otherwise mentioned, and the harness for the same
Bark used in tanning
Barley meal and any meal not otherwise mentioned
Round or square iron in plates, sheets, or any other form, and old iron in lumps
Bath bricks
Bricks, slabs or flags of baked clay, marble, jasper, wood or any other material for pavements, not exceeding 60 centimetres; tiles of baked clay, slate and common unwrought stone of any kind
Firewood and vegetable charcoal in pieces
Timber prepared for the construction of ships, and logs made of pine, pitch-pine, or of any common wood
Maize
Apples, grapes, pears, and any other fresh fruit, including cocoanuts
Machinery and apparatus not mentioned in the preceding class, and weighing more than 1,000 kilos
Windmills
Music, printed
Manioc
Straw and dry grasses, other than medicinal
Common resin, white, black or red
Logwood, guiacum, Brazil wood, dyewood, pink sandal wood, and similar woods in shavings
Cigarette paper
Pianos
Slates, with or without frames, slate books and slate pencils
Pine resin
Wheels for carriages, carts and wagons
Epsom and Glauber salts
Groats, broken, for making vermicelli
Boards for making boxes, or boxes in detached pieces
Chalk, white, in sticks or powder
Gypsum in pieces or in powder, and sized gypsum

The following articles belong to the third class, paying a duty of 25 centimes per kilog:

Table or salad oil
Colza oil and any other oils for lighting purposes, not otherwise mentioned, and machine oil
Stearic and oleic acids and stearine
Acetic, hydrochloric, or muriatic acid
Nitric acid or aquafortis
Steel, bronze, brass, copper, tin (pure or alloyed), lead and zinc, in lumps or unworked, in bars or in sheets, perforated or not
Orange flower water, mineral waters, lemonades, and gaseous waters
Spirits of turpentine
White lead or carbonate of lead
Alum
English yellow or chromate of lead, minium, litharge and manganese
Animals, stuffed
Filters
Harness for funeral horses, and collars for plough horses
Ground rice, sago, arrow-root and tapioca
Sulphur in powder or paste
Scales, steelyards and weights, excepting those of copper or an alloy, the greater part of which is of this metal; ammunition, shot and balls
Cables
Planks, beams and joists of pine, pitch pine, or any other description of wood, unplaned or ungrooved

The following articles belong to the third class, paying a duty of 25 centimes per kilog:

Barrels, pipes, or butts, put together or not, and staves when imported separately
Pottery, glazed or unglazed, in any form not otherwise mentioned
Oxide of zinc
Canes, reeds, rushes, palm, osier and straw, not worked
Lees of oil
Tackle, rigging and cordage
Pipes, cigar holders, and common earthenware pipes without admixture of any other material
Cannons of all kinds
Beans, peas, lentils, haricots, kidney beans, potatoes and all vegetables and garden produce
Coarse sacking and other similar materials
Vegetable charcoal in powder, animal charcoal and lampblack
Pickles, with the exception of olives and capers
Berries and seeds of the juniper
Emery in stone or powder
Esparto grass
Fuses and matches for miners
Copper tarpauling nails
Fonts or fountains of iron, marble or any other material
Sago flour
Biscuits, without sugar
Fluid gas
Wheat flour
Tools and instruments, such as mallets, sledge-hammers, axes, mauls, bellows of all kinds, cramps, large screws for anvils, and similar tools and instruments
Wire, manufactured or wrought, excepting galvanized wire, anchors and chains for vessels, safes, mortars, furniture, copying presses and machines for stamping paper, nails, tacks, drills, rivets, tarpauling nails, buildings not erected or their separate parts, as balconies, doors, balustrades, gratings, columns, roofings, even when imported separately, statues, jars, flower-pots, statues and similar ornaments for houses and gardens, weights for weighing, flat-irons, posts for palisades, stoves, boilers, kettles and other household utensils, tinned enameled, or not, with the exception of similar articles of brass or of tin, which are otherwise provided for
Tin, unmanufactured
Bones, horns and hoofs, not worked
Glazed cotton lining, blue
Hams and bacon, not imported in tins
Books, printed, unbound, not otherwise mentioned, pamphlets, registers and copy books intended for primary instruction, simply stitched
Beef, salted in brine or smoked, smoked or salted bacon or tongues, not otherwise mentioned
Packing cloth, fine pasteboard or thick office paper for cards, and any other purpose, also copying paper
Onions
Sieves of iron ware
Vegetable fibre
White wax for shoemakers
Ale and cider
Chloride of lime
Copper, old, in lumps
Portable kitchens, of iron or other materials
Hearses, including the glasses, feathers, plumes, etc., when they are imported, together with the hearses
Chalk, white or red
Glass or emery paper
Linseed, in grain or powder, and colza seeds
Flax, raw
Earthenware and pottery, common, glazed or not, not otherwise mentioned
Walnut wood
Wood, fine, for furniture, musical instruments, etc.
Wood, in sheets, for veneering
Wood, sawn, planed, or dove-tailed
Lard and butter
Machinery and apparatus not otherwise mentioned, and not exceeding 1,000 kilos. in weight
Mills or windlasses not otherwise mentioned
Ore of iron, copper, tin, graphite or lead
Paper of all kinds, not otherwise mentioned
Fish, salted in brine, or smoked
Stones for lithographing, pumice-stone, stones of all kinds for grinding or whetting, stones for distilling purposes, and any other, similar to those mentioned
Paints, common, prepared in oil
Potash, common or calcined
Saltpetre and salts of nitre
Leeches
Sardines, pressed, in oil, or in any other form
Suet prepared for the manufacture of stearine candles or stearine
Soda, common or calcined
Carbonate of soda, crystallized
Sulphate of iron or copperas
Sulphate of copper or bluestone
Articles of iron wire not otherwise mentioned

The following articles belong to the third class, paying a duty of 25 centimes per kilog:

Turpentine, common
Glass, or crystal glass, not silvered
Vinegar
Wines of every kind in pipes or barrels, and red wines from Spain or Bordeaux, in bottles and demijohns
Coffee winnowers
Sumac in powder or in the leaf

The following articles belong to the fourth class, paying a duty of 75 centimes per kilog:

Almond or linseed oil
Train oil
Palm oil, drying oil, or painter's oil
Olives and capers
Oil and vinegar cruets and water and vinegar holders, not ornamented with gold or silver, or of German silver, gilt or plated
Articles of steel, iron, copper, brass, tin, bell-metal, bronze, lead, pewter, zinc and nickel, polished, not varnished, tinned or bronzed
Iron wire, manufactured in frames for wigs, bird-cages, racks for clothes and hats and similar articles; and also frames for umbrellas and parasols
Almonds, filberts, nuts, ground nuts, chestnuts, and other dried fruit with shells, not specified
Stills and similar apparatus
Garlic
Sesame, canary seed and millet
Anise-seed, carraway seed, cinnamon, cummin, cloves, wild marjoram and pimento
Chandeliers, gloves, shades, candlesticks, girandoles, lanterns, lamps, flat candlesticks and hanging lamps, not ornamented with gold or silver, gilt, or plated
Christmas trees
Jet, unmanufactured
Scales, steelyards and weights of copper, or of an alloy, chiefly composed of copper, and weights of iron, if imported together with the scales
Wooden troughs
Billiard table cushions, and endless straps for steam engines, of thick oilcloth
Bagatelle boards, with cues, etc.
Felts for hats, hair for hats, paper boxes, leather, linings, plush, peaks for caps and helmets, and any article used in the manufacture of hats
Blacking
Billiard tables with accessories, including the balls and cloths, when imported together with the tables
Ninepins
Boxes of wood
Baskets, osier baskets, small carriages for children, and other articles of osier and wicker work
Pasteboard, manufactured or prepared for boxes, and in any other form, excepting playthings for children, masks and playing cards
Barley, bruised or ground
Veratrina
Capsules for bottles
Brushes and horse brushes, common, and those of horn or whalebone, for scrubbing
Wax, black, yellow and vegetable, not prepared
Glue, common
Collodion for photographic purposes
Pointed knives, common, with or without sheaths; knives with handles of wood or other common material, for fishermen, shoemakers, saddlers, gardeners, and those commonly used in arts or trades
Varnishes
Gutta-percha made into tubes, pipes, leaves or bands for machinery
Oil or waxed cloths for floors or packing
Looking glasses and plate glass, silvered
Sperm oil and paraffine
Yeast
Matting for floors
Table mats
Figures, ornaments and boxes used in confectionery
Door mats
Vermicelli, macaroni, and similar preparations
Fruit in brandy or sirup, and dried fruits
Saddletrees and headstalls for animals
Biscuits, fancy
Gasoline and benzine
Gelatine
Potato, maize and rye flour
Shoemakers' thread
Letter thread and any other coarse thread of hemp, aloes, flax or cotton, not including that intended for sewing, embroidering and weaving
Pack thread, twine or rope, and hempen threads for fishing nets
Tin and brass manufactured in any form not specified, and iron utensils for domestic use, with tin or brass covers
Incense
Tools used in the arts and trades, with or without handles, such as pincers, gimlets, compasses, trow-

The following articles belong to the fourth class, paying a duty of 75 centimes per kilog:

Awls, chisels, levels, planes, awls, files, hammers, saws, vices, screws, augers, etc., including the boxes containing any of these instruments
Stone soap, called tailor's soap
Sirups, not medicinal, and preserves of all kinds
Sealing-wax in sticks, and shellac
Wool, raw
Canvas and sail cloth of hemp or cotton
Milk, condensed
Books, printed and bound, not otherwise mentioned
Earthenware, imitation china
China or porcelain in any form, not specified
Hops
Wood, manufactured in any form, not otherwise mentioned
Hand copying machines
Marble, jasper, alabaster, granite and any similar stone, wrought or polished in any form not otherwise distinguished
Maizena
Wicks and twists for lamps and tube cleaners
Mustard
Furniture of common wood, osier, straw or wicker
Organs and parts thereof, imported separately, including piano stools
Bone dust
Wooden shuttles
Mastic for polishing, and also that used for the tips of billiard cues
Wall paper
Plaster, imitation porcelain, marble, granite or any other fine stone in any form, excepting toys for children
Tobacco, cut, for cigarettes
Flints, touchstones, polishing and similar stones, not otherwise mentioned
Hides not tanned or prepared
Baking powder
Solder
Leather tips for billiard cues
Cheeses
Bags, empty, of canvas, osnaburghs, and other similar fabrics
Sausages, jams in tins, preserved foods, ketchup and any other food, not otherwise mentioned
Sauces of all kinds, and pickles in mustard
Suet, raw, undressed or pressed, and ordinary fats for making soap
Syphons for aerated waters
Leather, red or white, not manufactured, and canvas soles for shoes
Talc in cakes or powders
Hog or horsehair lines for fishing
Wire meat covers
Stoppers, with heads of metal, glass, crystal or porcelain
Cloths or stuffs of cotton, canvas, esparto or thread, for floor coverings even when mixed with wool and hair stuffs for furniture
Canvas for portraits and oil paintings
Cloths, common, or stuffs of hemp or cotton for furniture, in broad belts or any other form, cotton knee cushions for domestic uses
Wooden heel pieces, shod with copper or iron
Strips of tinned paper or linen for shoemakers, each 1 centim. wide and 12 centim's long
Bootjacks and corkscrews
Chalk in sticks, lumps, or other forms for billiards
Blinds for doors and windows
Tubes and bands of India-rubber for machinery
Sails of coarse cloth
Tallow candles
Velocipedes
Glass or crystal, manufactured, in any form, not otherwise mentioned
Wines imported in demijons or bottles, excepting Spanish and Bordeaux red wines
Gypsum, manufactured, in any form, except playthings for children

The following articles belong to the fifth class, paying a duty of 1 bolivar 25 centimes per kilog:—

Oils and soaps, perfumed
Oil of sesame, castor and other kinds not otherwise mentioned
Cod-liver oil
Tartaric acid in powder
Arsenic and liquid ammonia
Waters, scented, for the toilet, such as "Floriline," etc., and hair wash
Almonds, bleached
Instruments for measuring hats
Photographic apparatus
Shapes of gummed stuff for hats, bonnets, or caps
Rings and buckles lined with leather
Stones for razors, fine stones for grinding and razor paste
Saffron
Quicksilver
Travelling trunks, sacks, leather bags and portmanteaus of all kinds
Skins for carrying wine, and small bags of oil-cloth for grain samples
Trusses, bougies, suspenders, lint, strainers, breast-drawers, and similar apparatus, cupping-glasses, anodyne, spatulas, lances and syringes
Linen and cotton tissues, such as brown holland, coverings, tickings, unbleached tissues, and any similar coarse tissues, including those with colored stripes or patterns
Paint brushes

The following articles belong to the fifth class, paying a duty of 1 bolivar 25 centimes per kilog:—

Hat cases of leather
Almanacks
Cotton canvas for embroidering
Tortoise-shell, unmanufactured
Home-spun linen, white collars, camel-hair cloth, fine linen with a hempen warp, called unbleached German holland, Nos. 9, 10 and 11, twilled cotton or linen, and cretonne, striped, dyed, or not, and any tissues similar to the above, not included in other categories
Sieves of copper wire, of leather, wood, or hair
Brushes for the teeth, clothes, hair, shoes and any other use not otherwise mentioned
White wax, not prepared, pure or mixed, and mineral wax
Bristles for shoemakers
Isinglass
Colors and paints, not otherwise distinguished, such as indigo, ultramarine etc.
Cork, in sheets, stoppers, or any other shape
Boot laces
Amethyst quarts
Cubebs
Penknives, pocket knives, razors, scissors, table knives and forks, except those with gilt or plated handles, or of German silver
Cords for musical instruments
Sassafras and other medicinal barks
Cotton drills, white or colored, and cotton flannel
Drugs, medicines and chemicals not otherwise mentioned, including vermifuges and any other substances used medicinally, such as the cardamom seed and plant
Oil-cloths, with the exception of those used as wrappers and floor-cloths
Buckram
Brooms and brushes of hair
Essences and extracts of every kind not otherwise distinguished
Sponges
Stereoscopes, dioramas, panoramas, magic lanterns, and similar apparatus
Paper lanterns, paper collars, fronts, and cuffs, including those lined with stuff and manufactured paper not otherwise distinguished
Foils, masks, breast-plates and boxing gloves
Phosphorus paste
Photographs
Cotton rugs
Woollen blankets, white, or with colored borders
Gum arabic, gum lac, copal and any kind of gum not otherwise mentioned
Hair gloves, including those used in fencing
Glycerine
Linen or cotton thread for embroidering, sewing, or knitting
Loadstone
Images or effigies, other than those of gold or silver
Instruments, musical, including musical boxes, together with their accessories, excepting pianos and organs
Surgical, dental, anatomical, mathematical and any scientific instrument not otherwise distinguished
Marbled soap, white, known as "Castille," "Marseilles," and common soap
Sets of chessmen, draughts, dominoes, roulette, and similar games
Toys for children, excepting those made of wood
Engravings on printed paper
Blank books, crayons and small pencils for drawing, portfolios, pencils of every kind, except slate-pencils, India-rubber, wafers and stamps for letters, ink and ink-powder for writing, paper knives, pencil-cases, sealing-wax, steel pens, penholders, inkstands, and any other article used in writing, excepting envelopes and those articles which contain gold or silver
Books containing gold or silver leaf whether real or imitation, for gilding or plating, and bronze in powder, and books for bronzing
Liqueur stands, empty or not, and not mentioned in any other category
Iron filings
Common linen or cotton tissues suitable for making workmen's clothes
Wooden mouldings for cornices, frames, etc., painted, varnished, gilt or plated
Elastic mourning crape for hats
Sweet liqueurs, such as cherry cordial, etc.
White madapolam, holland, etc., of cotton or any similar material
Frames of any material, with or without glasses, portraits or engravings
Masks of all kinds
Wedding garments of cotton
Leather, ribbon or paper measures, with or without cases
Furniture of fine wood, such as palisander, rosewood, mahogany, walnut, and upholstered with wool, cotton, silk and horsehair
Nutmeg and mace
Screens of paper, metal, stuff, etc.
Pastilles of all kinds
Perfumery

The following articles belong to the fifth class, paying a duty of 1 bolivar 25 centimes per kilog:

Parchment and imitations of the same, not otherwise mentioned, and cloth used for book-binding
Areometres and guages for alcohol
Paintings, chromos, drawings, portraits on linen, wood, paper, stone, or other materials, and photographic apparatus
Rice powder for the toilet and powder puffs
Bottle and glass stands
Tannin
Tea
Vanilla
Inks, except printing ink
Poisons used in tanning
Candles of sperm, paraffine, composition or stearine
Dowlas, unbleached, of cotton or linen, even with stripes or colored flowers
Tinder-boxes and flint, and wick for the tinder-box

The following articles belong to the sixth class, paying a duty of 2 bolivars 50 centimes per kilog:—

Bugles and beads of glass, porcelain, steel, wood or any material, excepting gold and silver; fancy articles of glass or porcelain mounted in gilt or plated metal
Steel hoops for crinolines, covered or not
Damasks, drills, unbleached cloth, Irish linen, etc., and tissues, dyed or undyed, of linen or mixed with cotton, not otherwise mentioned
Pins, needles, bodkins, hooks and eyes, thimbles, hairpins, and buckles for shoes, hats, waistcoats and trousers, except those of gold and silver
Rugs or carpets
Vests, bands, caps, drawers, trousers, stockings, and all cotton knitted goods
Spectacles, opera-glasses, telescopes, eye-glasses, microscopes, except those mounted in gold or silver; the glasses, though imported separately, pay the same duty
Whalebone and its imitations
Sheepskins
Barometers, hydrometers, chronometers and thermometers
Canes, whips, and life preservers, with the exception of those containing swords or mechanism for firing
Buttons of all kinds, excepting those of silk, gold, or silver
Baize or rateen in pieces, or blankets and ready-made "ponchos" of these materials
Ships' compasses
Pipes and cigar-holders of amber, porcelain, and any material except gold and silver, and not otherwise mentioned
Shells, loose or made up as ornaments
Pocket-books, cigar-cases, purses, spectacle-cases, card-cases, match-boxes, albums, and any similar articles, except those of gold and silver
Wax, manufactured in any form except as toys for children
counterpanes, sheets, hammocks, mantles, table-covers of linen or cotton
Elastics for boot springs
Coral in any form, except when set in gold or silver
Funeral wreaths or other funeral adornments
Work-boxes, reticules, and traveling necessaries
Crinolines, bustles, and similar articles
Knives and forks with handles of German silver or white metal, gilt or silvered
Mattresses, pillows and cushions, except those of silk; feathers for stuffing them
Cotton cords for hammocks
Damasks, bombazine, padding, ticking, nankeen, quilting, sateen, and stiff muslin, white or colored, of cotton, and similar cotton materials not otherwise mentioned
Artificial teeth and eyes
Skirts, dressing-gowns, night-dresses, and chemises of cotton, made up or cut out, and cotton stuffs prepared for skirts, with or without embroidered bands
Articles of German silver or white metal, or imitations, such as dishes, trays, bridles, bits, spurs, stirrups, bridle-chains, buckles, chandeliers, lamps, etc
Articles of iron or other metals, gilt or silvered, not including writing materials
Wool, combed, in the yarn, and goats' hair
Brushes and brooms of palm, rushes, and other vegetable fibre
Felt in pieces for saddle-cloths
Blankets, mantles, or quilts of wool mixed with cotton, and with a colored ground
Stuffs and embroidery for slippers, excepting silk
Gutta-percha, manufactured or not
Imitation gold and silver thread, spangles, gold leaf, foil, galloon, small wares and other articles, sewn or embroidered

The following articles belong to the sixth class, paying a duty of 2 bolivars 50 centimes per kilog:—

Bone, ivory, mother-of-pearl; jet, real and imitation; tortoise-shell, real and imitation; caoutchouc, elastic; horn and talc, manufactured in any form not otherwise specified, except as children's toys, and when combined with gold or silver
Table-cloths, towels, and napkins of all kinds
Wedding garments of linen, or of linen mixed with cotton
Hands, keys, springs, and other parts of watches, not of gold or silver
Wicks and cotton for wicks
Cotton handkerchiefs (by handkerchiefs is understood those not exceeding one metre in length)
Paper
Gilt or silvered paper stamped in relief, and colored paper for flowers
Umbrellas and parasols of wool, linen or cotton
Imitation pearls and stones, mounted in any metal except gold or silver
Skins, tanned, not made up, except white or red leather for boot soles
German silver in any shape or form
Goose-quills prepared as toothpicks
Feather dusters
Table or wall clocks, alarum clocks, water clocks, hour-glasses, and any other kind of clock, except turret clocks
Hats, bonnets and shapes of straw or its imitation, not trimmed
Sole leather, varnished, not manufactured
Sextants
Dowlas, white, of linen, or of linen mixed with cotton.
Chintz, calicoes, cretonnes, fine French cloth, and other materials used in making women's dresses; poplins, Japanese cloths, colored shawls, and any other colored cotton cloths similar to the above, and not otherwise distinguished

The following articles belong to the seventh class, paying a duty of 5 bolivars per kilog:—

Fans of all kinds
Bitters, whether in bottles or casks
Playing cards
Sword sticks and air guns
Brandy or cognac and their essences, including rum not extracted from the sugar cane less than 22 degrees; when above this strength they pay duty proportionately
Stockings, fringes, tassels, laces, ribbons, bands, cords, gimps, small wares, chenilles, caps, bows, socks, and gloves of wool, or of wool mixed with cotton
Boots and shoes not made up or without soles
Shirts, made up, purely of cotton
Carpets, cloths, and any articles of crochet, except those of silk
Ecclesiastical vestments
Cigarettes of paper or maize-leaf
Cravats of cotton or wool
Curtains, hangings, and mosquito-nets of linen or cotton
Braces, stays, bodices, and garters of all kinds
Skirts, dressing-gowns, pillow-slips, and chemises, of linen or of linen mixed with cotton, except those of cambric or of cambric mixed with cotton
Laces, insertions, blonds, edgings, ribbons, purses, tapes, tassels, cords, fringes, socks, braids and gloves of linen or cotton
Swords, sabres, poignards, hunting knives, blunderbusses, pistols, revolvers, guns, fowling pieces, muskets, rifles, carabines and other fire-arms, including projectiles, capsules, percussion caps, nipples, gun-locks and loaded or empty cartridges
Phosphorus matches of wax, wood or paste
Gin
Stockings, of linen or of linen mixed with cotton
Shot-bags, powder-flasks, cap-boxes, and bags for sportsmen
Muslins, colored, cotton crape, lawn, cotton gauze, grenadine, book-muslin, very fine linen, cloth known as "clarin," tarlatan, batiste, cotton batiste, white or colored, plain worked, open worked or embroidered, in pieces or cut out, and any similar materials not otherwise mentioned
Muslins and batistes of linen or of linen mixed with other materials, unbleached or colored, in pieces or cut up for clothes
Cotton velvet, cotton plush, and imitation velvet in pieces or ribbons
Woollen cloth, kerseymere cloth, muslin, satin, net, flannel, bombazine, alpaca, crape, merino, serge, damasks, and similar materials of wool, or of wool mixed with cotton, not otherwise mentioned, and not made up into wearing apparel
Shawls and scarfs of muslin, net, or any other fine cotton material
Shawls, handkerchiefs, tablecloths and undershirts of wool, or of wool mixed with cotton, neither ornamented nor embroidered with silk
Umbrellas and parasols of silk, or of silk mixed with wool or cotton

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The following articles belong to the seventh class, paying a duty of 5 bolivars per kilog:—

Skins and leathers, dressed, manufactured in any shape, except as shoes and gloves
Lace or tulle of cotton
Saddles, head-pieces, holsters, reins, girths, cruppers, saddle and horse-cloths of every kind
Tobacco in the leaf

The following articles belong to the eighth class, paying a duty of 10 bolivars per kilog:—

Head-dresses and nets of all kinds
Human hair and its imitations, made up or not
Shirts of linen or wool, or partly of cotton and linen; trousers, jackets, blouses, waistcoats, drawers, coats, paletôts, vests; and any ready-made clothing of linen or cotton, for men, not otherwise mentioned
Collars, fronts and cuffs, of linen or cotton, for men's shirts
Collars and cuffs of linen or cotton, for women's dresses
Skirts, dressing-gowns, pillow-slips, chemises of batiste or of linen, or of linen mixed with cotton
Flowers and fruits, artificial, not otherwise mentioned, and materials for making flowers, except colored paper
Leather gloves, not including boxing-gloves
Holland batiste, knitted wares, muslins, tarlatan, and any other fine linen or cotton stuffs, made up into ruches, caps, robes, sleeves, dresses, and other forms not elsewhere specified
Precious stones, pearls and jewellery; articles wholly or in part of gold or silver, watches of any material, empty watch-cases and jewellery-boxes, though imported separately
Books, bound in velvet, silk, mother-of-pearl, tortoise shell, ivory, Russian leather with gilt or plated edges and ornamented with gold or silver
Handkerchiefs of linen or of linen mixed with cotton
Feathers for head-dresses and bonnets, and hearse plumes, imported separately from the hearses
Silk, pure or mixed with other materials, tissues of other materials mixed with silk
Tissues of every kind, mixed or embroidered with gold or silver, real or imitation, excepting church ornaments
Stuffs of wool, or of wool mixed with cotton, made up as mosquito-nets, hangings, curtains, and other articles not otherwise mentioned
Tobacco other than for chewing, manufactured in any form, except when cut up for cigarettes

The following articles belong to the ninth class, paying a duty of 20 bolivars per kilog:—

Boots and shoes, ready made
Placards and handbills, printed or lithographed
Cigarette boxes
Circulars, printed or lithographed
Labels and inscriptions, printed or lithographed, which are not attached to any article; visiting cards, with or without colored designs
Cloth, cassimere, velvet, net, flannel, alpaca, bombazine, serge and damask of wool, or wool mixed with cotton, made up as men's clothing
Envelopes of all kinds
Hats and bonnets, trimmed, of every kind, for ladies
Hats of plush and black silk, with high crowns, and similar hats of any material including opera hats, hats already cut out, fel (made up, and any other class of h stpartially or wholly made up, excepting those of straw or its imitations
Cards, large, printed or lithographed
Women's clothing, made up of tarlatan, silk, wool, batiste, muslin, and any other material of linen or cotton
Men's clothing of wool, linen or cotton, not otherwise mentioned

The importation of the following articles is prohibited:—

Cocoanut oil
Dynamite
Rum extracted from the sugar-cane
Cotton
Starch
Indigo
White or brown sugar
Cocoa
Coffee
Molasses from sugar and bees' honey
Wooden toys for children
Wooden strips for matches
Salt
Tobacco in cakes, and all twisted tobacco for chewing
Sarsaparilla
Spurious money and foreign silver coin not included in the Monetary Convention of 1865
Apparatus for coining money, not imported for the Government Mint

Ecuador is also one of the countries whose vessels as well as their cargoes are entitled at ports of the United States to the privileges of the most favored nation. Vessels of the United States and their cargoes enjoy the same advantages at the ports of Ecuador.

Every copy of a bill of lading is required, at Guayaquil, to be on stamped paper of 10 cents of a sucre; and all bills of lading for import cargoes on arriving there, must have the same stamp affixed.

Vessels pay the following charges at Guayaquil: Wharfage: Ranging to $8 per day for vessels of 1.0 tons, to $18 per day for vessels from 300 to 8.9; and for vessels of 400 tons and upwards $6 additional to the $18 for each 100 tons.

Pilotage (inward and outward the same): $2 per Spanish foot as far as pund; $2.50 to Punta Arenas. (A "pund" is about 15 miles from sea; and a "punta-arena" at sea or mouth of a river.)

Captain of the port's fee	$ 4 00
License for clearing	6 00
Crew list	1 00
Anchorage fee	10 00
Health fee	8 00
Tonnage dues, per ton	50
Light dues, per ton	37½
Harbor dues	4 00

Mole dues (charged on vessels discharging by lighter):—Barrels of 18 gallons, 5 cents; piaco in box, 25 cents; 5 cubic feet, 5 cents; 8 cubic feet, 6¼ cents; 12 cubic feet, 12½ cents; 100 pounds of iron or other metal, 3 cents; a crate of earthenware, 25 cents.

Whalers and steamers are free from port dues; likewise vessels entering to repair damages or for provisions, are free from tonnage dues (provided no part of cargo is sold, otherwise the tonnage money must be paid.) Cargo may be sold to cover the expense of repairs, or to procure needed provisions, without incurring tonnage dues. A vessel that has paid the dues at one port, if she proceeds to another port of the republic, she is free in the second port, but not in the others.

Private charges: Lighterage.—Vessels may lie in the stream and handle cargo in rafts of 15 or 20 tons; otherwise lie at the wharf. Lighterage is $4 to $5 per load of 15 to 20 tons.

Labor: $1.50 per day for each man. Commission: Where there is no address, commissions, from $.0 to $100 are charged for transacting a vessel's business.

NOTE.—Sucre=4s. 2d.; Kilogram=2.204 lbs. Avoirdupois.

Articles of foreign origin, introduced through the custom-houses of Ecuador, are divided into the following nine classes:—

1. Articles whose importation is prohibited.
2. Articles admitted free of duty.
3. Articles paying 1 cent of a sucre per kilog.
4. Articles paying 2 cents per kilog.
5. Articles paying 5 cents per kilog.
6. Articles paying 10 cents per kilog.
7. Articles paying 50 cents per kilog.
8. Articles paying 1 sucre per kilog.
9. Articles paying 2½ cents per kilog.

(All duties are levied upon the gross weight.)

The following articles belong to the first class:—Bullets, cannon balls, shells, and other war materials; cane spirit and its compounds; carbines, fireworks, pistols, etc.; dynamite and other explosives; kerosene less than 150° proof; liquids and other articles containing substances injurious to health; machines for coining; powder and salt (Note.—So long as the government holds the exclusive right of importing same); spurious money, copper and nickel coin; statues, postage stamps, books, paintings, and writings, which are immoral or irreligious.

The following articles belong to the second class, and are admitted free of duty:—Articles imported on account of the government; for use in public works; articles for foreign religious institutions established in the country; articles intended for the personal use of foreign ministers and diplomatic agents accredited to the government of Ecuador, provided reciprocity exists on the part of the nations they represent; articles intended for use in public

instruction and charitable institutions; articles used for ecclesiastical purposes; articles used in the construction or fitting out of ships, such as tar, pitch, rope, copper, canvas, etc.; birds' eggs; boats, rowing, and other small craft; buoys of iron; coal, wood or animal charcoal; fire engines and apparatus for extinguishing fires; fruits, fresh; gold and silver coin (legal); gold in bars or dust; guano; hose for fire engines; life buoys; lint; live animals; machines, tools, tin and other materials intended for mining purposes; oars; passengers' luggage, not exceeding 92 kilos. for each person and coming by the same vessel as the passenger, any excess of this weight will be dutiable; samples of goods and other articles in small pieces without value; seeds of all kinds for planting; ships, put together, or in detached parts; silver in old plate or bars; the natural products and manufactures of Perú and Colombia, when imported through overland ports; wood for ships' masts.

The following articles, paying a duty of 1 cent per kilog., belong to the third class:—Bran; bricks of clay; cocoanuts (dried and fresh), such as those of Guayaquil; garlic; grain, for cattle food; grain, unprepared; hides, fresh and salted; pig-iron; Roman cement; slates for roofing; straw, dried, and hay, for fodder; sweet potatoes; vegetables, fresh; water filters.

The following articles belong to the fourth class, paying a duty of 2 cents per kilogram:—Agricultural and industrial machinery; anchors; angle-iron, galvanized, for roofs; barley; books and pamphlets, printed; carts and wheel-barrows; cart wheels; copper, bronze, and brass, unmanufactured, in sheets, not perforated, and scrap; crowbars; earthenware, common; earthenware gas retorts; empty bottles; empty demijohns; empty jars; harrows; hoop-iron for barrels; hops; iron nails; iron, unmanufactured, in sheets, bars, for roofing, and iron for smelting; lime; maize; paper for printing; picks and sledge-hammers; pipes and aqueducts of iron, earthenware, or clay, of more than 12 centimetres interior diameter; pitch; ploughs, shovels, spades, weed-hooks, and rakes, for use in agriculture; portable railroads and accessories; printers' ink; printing presses and accessories; pruning-hooks; salt fish, such as Peruvian; screws for steamers: sheet iron, tinned, unmanufactured; slates for writing, and slate-pencils; staves for barrels; steel, unmanufactured; straw-paper for packing and lining ships: tar; tin, unmanufactured; wheat; wheels and parts of agricultural and industrial machinery; wire and staples for fencing; wood, in planks and beams, or for building purposes; zinc, raw, or in sheets, not perforated.

The following articles belong to the fifth class, paying a duty of 5 cents per kilogram:—Almonds; alum; anotto; barometers; barrels, tubs, pipes, and hogsheads, empty; beer, in any receptacle; brooms, with or without handles; canary seed; "chicha," an alcoholic beverage made from corn or grapes; Chilian cocoa-nuts; church organs; coca; columns, of marble, iron, or other materials; cotton, raw, with or without seed; cotton waste; crucibles; cumin-seed; earthenware, fine or porcelain; earthenware jugs; empty bags of all kinds; flour, of wheat, maize, etc.; fruits, dried, and other comestibles, not prepared; glassware, common; hams; harness for carts; hides of small animals, unprepared; iron chains for ships and small craft; kerosene, 1500 or more proof; lavender; lead, unmanufactured; linseed; macaroni; machetes, common; machine oil; maizena; marjoram; music, printed, manuscript, or lithographed; nuts; oakum; paste-board for book-binding; poisonous liquids for tanning; raisins; rice, sackcloth; salt, fine; salt meats; saltpetre, unrefined; ships' compasses; sisal and Manila rope; soda-water machinery; soap, common; spirits of turpentine; starch; statues more than one metre high; stones, not otherwise distinguished; straw for brooms; sugar; molasses; tallow; tombstones and mausoleums, more than one metre high; vehicles, fitted or in parts; window-glass, common; writing ink.

The following articles belong to the sixth class, paying a duty of 10 cents per kilogram:—Artisans' tools; billiard tables; boot pegs; brass, manufactured; butter; candles; Chinese mats; copper or bronze, manufactured or in perforated sheets; corks for bottles; cotton twist; furniture, complete or in parts; glassware, fine; harmoniums; indigo; iron, manufactured, not otherwise distinguished; lard; lead, manufactured; musical instruments, more than one metre high, with the exception of church organs; oilcloths for floors; oils, linseed, olive, castor and almond; olives; paint in powder, paste, or any other form; paper, writing, and other kinds, not otherwise mentioned; phosphorus; steel; string and twine; tarred felting for ships; tin, manufactured; tinned goods; trunks; varnish; vinegar; wax, raw; wines, in any receptacle; zinc, manufactured or in perforated sheets.

The following articles belong to the seventh class, paying a duty of 50 cents

per kilogram;—Tabacco in the leaf, or manufactured; woollen goods, woven or not, with or without woof.

The following articles belong to the eighth class, paying a duty of one sucre per kilogram:—Antimacassars and similar articles, netted or crocheted; breech-loading guns and revolvers; coral, manufactured or not; drawings, unframed, on paper, canvas, etc.; engravings; fancy goods; flowers, artificial; gloves; gold and silver, manufactured; hammocks; hats and caps for ladies; ivory, manufactured; laces and trimmings of wool or linen; materials containing silk, silver and gold, or imitations of the same; precious stones, silk; spectacles and eye-glasses; stereoscopes and magic lanterns, and views for the same; strings for musical instruments; tortoise-shell, manufactured; wigs or hair, natural or artificial.

All articles not belonging to the previous eight classes are included in the ninth class, and pay a duty of 25 cents per kilogram.

Boots and shoes of all kinds, hats, ready-made clothes, such as shirts, dresses, coats, waistcoats, etc., with the exception of common or seamen's boots, and of ordinary undershirts and drawers, and socks or stockings, pay an increased duty of 25 per cent. above the corresponding duty, according to the material of which composed.

Under the existing treaty between Brazil and the United States, concluded as far back as 1829, the clause of the most favored nation (excepting as to relations between Brazil and Portugal) is recognized, the vessels of both countries being on the same footing as to tonnage dues, drawbacks, etc. No higher or other duties are to be imposed on imports, the produce of either country, than are imposed on like articles, the produce of any other foreign country. The principle that free ships make free goods, and also free persons, is stipulated, though with the understanding that the principle is not extended to the flags of powers that do not accept the doctrine that the flag shall cover the property. Liberty of trade is recognized, except for certain articles comprehended under the term of contraband of war; namely, arms of all kinds, and munitions of war; generally all articles for equipping troops or expressly made or prepared to wage war by sea or land.

Brazil has consular conventions with several foreign powers, which give to their consular representatives intervention in regard to the property of absent and deceased persons. Having come to look upon this as an irksome concession, the Brazilian government has given those nations the stipulated twelve months' notice that the treaties shall have no force after the time for which they were made has expired.

The port and custom house regulations of Brazil are very explicit and rigorously enforced, not only to prevent disorder and preserve health, but to check smuggling. The pecuniary penalties for any infringement of the rules are quite severe. In order that a vessel bound to a Brazilian port may obtain a clearance from the Brazilian consulate at the port of departure, her master must place in the consul's possession two manifests of the same tenor and date, signed by himself, for her cargo; this manifest must state the class, name, tonnage, and nationality of the vessel; name of her master; port where the cargo was laden, and the port or ports of her destination; marks, countermarks, and number of each package, and its denomination, such as case, bag, bale or sack, pipe, etc.; quality and quantity, weight or measure of the goods, as near as possible, of each package and of those in bulk; also a bill of health, and his crew list. He must likewise give, in a separate paper if he likes, the total value of the cargo for the consul's record books. The vessel's bill of lading must agree in every respect with the manifest. The consular legalization will cost, for a vessel of 200 tons and under, 1£. 7s. (about $6.75), which fee is gradually increased on each additonal 50 tons, until 3£. 3s. (about $15.75) is charged for a vessel of 3,1 tons and upward. Authenticating the crew-list and bill of health, 9s. (about $2.25) each. Passengers going to Brazil must be provided with a consular passport, costing about $2.25. Once arrived at a Brazilian port, the

vessel is to hold no intercourse with any one from the shore without having been visited first by the health officer, and next by the government and custom house officials. Within 24 hours of his arrival the master must report himself at the custom house with his ship's papers, together with the manifest of cargo, and the list of passengers and their luggage. The custom house hours for discharging coal are from 7 A. M. to 3 P. M.; for general cargo, from 7 to 11 only. No vessel is allowed, after being placed *en franquia* or free pratique, to remain in port more than 15 working days, unless, for some good reason, she should be granted a prorogation of 10 days, and no longer. At the end of this time she must discharge her whole cargo, or pay a fine of 200 milreis per ton on her register tonnage for every day she remains in port with her cargo on board. Cargo is transferred between vessel and shore by lighters at her expense, unless otherwise agreed upon with the owners of the cargo. The port of Bahia has no dry dock, but ships of 2,000 tons can be hove down for repairs. Vessels are permitted to discharge a portion of their cargoes at one port, and the rest at others: but the intention to do so must have been expressed on the manifest, as for instance, for Pernambuco, Bahia, Rio Janeiro, and other ports. If cleared for only one port, a vessel must unlade her whole cargo at that port. A new bill of health must be obtained from the proper authority before sailing for another port. A lazaretto is provided at Rio de Janeiro to receive passengers from ports where yellow fever, cholera, eastern plague, or other epidemics prevail. Persons in quarantine must pay for their food, and for disinfecting their baggage. Immigrants are exempt from these charges, but not the government, company, or individual for whose account they have come. The quarantine for passengers arrived on infected vessels usually lasts from 5 to 10 days; when the vessel is merely suspected, the quarantine is of only 3 to 5 days. The time commences with the coming of the passengers into the lazaretto. These provisions extend also to the provinces of Bahia, Pernambuco, Maranham, Pará, São Paulo, and Rio Grande do Sul. For the dispatch or clearance of a foreign vessel from a Brazilian port, she is required to establish the facts that she has lawfully shipped her crew, and that she has been duly measured to ascertain her tonnage in Brazilian tons. In measuring the tonnage, the result is that 100 United States tons are equivalent to about 133 Brazilian tons. Pilots may be had by making the usual signal. The anchorage dues are the same at all Brazilian ports, namely, about 25 American cents per Brazilian ton; but vessels entering in franquia, and neither loading nor unloading, pay 20 reis per metric ton for each day of stay, in lieu of anchorage dues. Light dues, 100 reis per ton. Lighterage of cargo is by custom chargeable to the vessel. No vessel can take ballast without first obtaining a permit from the captain of the port. Throwing ballast overboard is subject to a heavy penalty. Articles of Brazilian production used in repairing, etc., of foreign vessels are exempt from export dues.

Port charges at Rio de Janeiro: Light and anchorage dues are collectable only 6 times in any one year. All vessels crossing the bar of Rio de Janeiro pay port duties as follows:—3-masted vessels, 12,800 reis; 2-masted vessels, 9,600 reis. Seal dues, 40 reis for each mast. Hospital dues: vessels of 3 masts, 6,000 reis; of 2 masts, 4,000 reis. Each man on board, 400 reis. Doctor's visits, 8,200 reis. If the vessel is sent into quarantine, 8,200 reis additional on the admission of the vessel to pratique. The official charges on a foreign vessel of 820 tons register, with a cargo of coals inward, and another of stores, outward would be about 210 milreis; not including her consul's fees. Private charges: Towage; the rates are high, about 800 milreis for a ship of 1,500 tons, both ways. Ballast costs from 1,000 to 2,000 reis, according to quality. Discharging expenses: it is customary for the vessel to pay the expense of landing and shipping cargo on freight, unless the contrary is stipulated in the bill of lading, or charter party. Steam-power may be employed for discharging. The following are the usual rates:

Coals up to 1,000 tons—to discharge in	8	days		1,500 reis
" " " "	10	"		1,800 reis
" from 1,000 to 2,000 tons—to discharge in	12	days		2,000 reis
" " " " " "	18	"		1,800 reis

2,000 reis per day is allowed per man for each of the crew employed. Ropes and blocks are furnished by the ship; other gear by the parties employed. Commissions: on purchase of a vessel by private contract, 2½ per cent.; on amount of vessels condemned by surveyors, 5 per cent.; on procuring, or collecting freight, 2½ per cent.; on disbursements of vessels, in common cases, with funds in hand, 2½ per cent.; on disbursements when funds are advanced, or in case of condemnation, or on vessels entering for repairs only, 5 per cent.;

on receiving and paying money, on which no other commission is obtained, 1½ per cent.; for effecting marine assurance, on the amount insured, 2½ per cent.; and when the premium exceeds ten per cent., 5 per cent. on the amount of premiun; on remittances of bills not endorsed, 0½ per cent.; in the case of discharging and receiving the cargoes of vessels in distress, on the invoice amount, 2½ per cent. One half of the 5 per cent. charged on sales of merchandise, is returned to supercargoes, but nothing of that on investments or other business.

Port charges at Pernambuco. Pilotage, compulsory. The rate varies for a vessel drawing 9 feet, from 11 milreis for one of 80 tons to 23 milreis for one of 680 tons; for a vessel drawing 20 feet, from 21 milreis on a vessel of 80 tons, to 34 milreis for one of 680 tons. One milrei is added for each 50 tons of measurement, and for each foot of water. When fractions occur in tonnage and draft, the next greater tonnage or draft is applied. If the draft of water is under 11 feet, ½ of the amount per table is added; if it is over 11 feet, ½ the amount is added. These two additional charges are for pilotage to the loading or unloading ground. One-sixth of the amount per table is added to the outward pilotage for beating and tacking. The law requires vessels to stop, both coming inward and going outward, at the above-named ground; hence the authorization for the above charge. The charge for beating and tacking is constructive, as vessels ordinarily use steam for entering and leaving. Towage: not compulsory. For the first American or English 100 tons, 30 milreis; for each ton in excess of 100 tons, 100 reis. If the tug furnishes a hawser, she charges 20 per cent. extra. For towing a lighter to and from a vessel in the outer roads, 50 milreis. Light dues: From 20 milreis per ton on vessels of 200 Brazilian tons or upward; 50 milreis per ton on one of over 700 Brazilian tons. Vessels calling for supplies and anchoring in the outer road pay light dues. Their registers are taken and held by the customs officials till the dues are paid. Tonnage dues were abolished in 1876. Fort pass, 6 milreis. Hospital dues: On vessels of 2 masts, 4 milreis; with 3 masts, 6 milreis; for each man of the crew, 640 reis. Stamp dues; On outward freight to Brazilian ports, on each 1,000 milreis, 2 milreis: to foreign ports, on each 1,000 milreis, 4 milreis. Translation of manifest: First 3 pages, 5 milreis; each additional page, 3 milreis; notarial signature thereto, 5 milreis. Bill of health, 2 milreis. Wharfage: Per metre of vessel's length, 400 reis per day when handling cargo; when idle, 200 reis. No wharfage incurred when vessels load and unload by lighter. Mooring and unmooring: For each the same charge. Hire of mooring boats, 8 milreis; pay of captain, 8 milreis; pay of each of the crew, 4 milreis. Mooring is compulsory. The pilot who brings the vessel in designates the mooring berth. Private charges: Stevedore's work varies from 40 reis for a sack of sugar to 400 reis for a bale of cotton, and 500 reis for a pipe of rum. Lighterage varies according to class of merchandise, and whether in harbor or outer road. Lighters of 120 tons charge for general cargo to the outer road, 320 milreis; of 60 tons, 160 milreis; of 30 tons, 100 milreis; for the inner harbor, 30 to 50 milreis. Ballast of stone is put alongside for 3 milreis per ton; of sand for 1,200 reis. Sand ballast is taken away for 1,200 reis, and stone for 500 reis, per ton, the ship delivering the ballast to the lighter. Water is delivered alongside at the rate of 1,600 gallons for 50 milreis. It can be had at the quays at 500 reis per pipe. Boat hire from shore to vessels in the harbor, 500 reis; to vessels in the outer road, from 12 to 20 milreis. Labor, 2,500 to 3,000 reis per day, in the harbor, from 6 A. M. to 6 P. M. For a longer time, or in the outer road, the rate is higher. Commissions: on disbursements, 2½ to 5 per cent.; on inward freight, 2½ to 3 per cent.; on outward freight, 5 per cent.; on advances against freight, including interest and insurance, 5 per cent. A ship of 400 English tons, equivalent to 520 Brazilian tons, (30 per cent.) will probably pay for all port charges about $1,880 to $1,900.

Port charges at Rio Grande do Sul: This is an expensive port. The official charges on a vessel of 245 Brazilian tons, including pilotage, would be about 255,380 reis. Towage: inward, exceeding 2 miles from bar, 1,200 milreis; over the bar only, 800 milreis; from south to bar, 600 milreis; from south to north (and vice versa), 600 milreis; from south to buoy, 320 milreis. The towage of the vessel over the bar outward—about 20 minutes' work—for a vessel measuring 157 Brazilian tons, is about $56. The private charges for a vessel of 245 Brazilian tons, would be towage outward, at 640 reis per ton, 156,800 reis; premium on same for national currency at 8 per cent., 29,134 reis.

The expenses of the under-mentioned ports are as follows: At Maceio, for a vessel of about 300 tons loading there, about $800; at Santos, for a vessel of 310 to 315 tons, with a general cargo inward, and leaving in ballast, about 600 milreis; at Natal, for a vessel of 312 to 315 tons, loading there, would be $425 to

$440; at Paranagua, pilotage, 50 to 100 milreis, according to agreement. Provisions are high-priced. A foreign vessel of 400 tons loading here, will pay about 800 or 815 milreis: At Pará, pilotage obligatory; inward, 60 milreis, outward 80 milreis; translation of the manifest, 8 milreis; bill of health, 50 milreis; hospital fees, 14.860 milreis; passport, 10.800 milreis; stamped paper, 4 milreis; captain of the port, 6.400 milreis; ballast, 8.980 milreis; clearance, about 30 milreis. An American vessel of 335 tons, with a cargo of paving stones inward, and ballast outward, paid for all expenses 1,745 milreis.

Port charges at Imbetiba: Pilotage not obligatory, about $15 per vessel; other expenses, including Cape Frio light, 10 cents per ton. Vessels discharge with their crews into lighters. Extra labor is worth 3 milreis per day. Vessels enter and clear at the Macahe custom house. At Cereá, the expenses of an American or English vessel of about 310 tons, loading with cotton, including both public and private, would be about 680 milreis.

The government of Brazil levies import duties. The duties on imports constitute more than one-half of its revenue; nominally they vary from 10 to 40 per cent. The custom house also collects on imports a certain percentage on the amount of these duties. This percentage, when first decreed, was only 5 per cent.; but it has been increased from time to time. In 1882 it was raised from 50 to 60 per cent. The emancipation law added a sur-tax of 5 per cent. on all taxes, except export duties. The import duties, then, with the addition of the 60 per cent. and the sur-tax of 5 per cent., nominally vary from 16.8 to 67.2 per cent. In many instances these duties are really much heavier, as in that of kerosene oil, which pays 85 per cent., though the duty on the article nominally is only 30 per cent. There are other goods which pay 150 per cent. of their value. Nor are these the only charges the custom house makes on goods imported; to them must be added the charges for handling, and storage, and the so-called *expediente* impost of 5 per cent. on some classes of goods, which are nominally exempt from duty. The custom house storage charges, increased in 1882, are as follows: ½ of one per cent. on the amount of duties for one month or less; 1½ per cent per month for two months; 2 per cent. for 4 months and upwards. A fraction of a month, if it is only one day, counts for a full month. The export duties are from 1 to 9 per cent. Exports pay also to the provincial governments, which have even levied import duties, raising questions which have not yet been settled. Coffee pays 7 per cent to the general government, and 4 per cent to the provincial government. The British consul at Rio de Janeiro said in 1874 to his government: "The custom of sucking the marrow out of the agricultural organization by the imposition of enormous export duties, has rendered the accumulation of capital an impossibility."

On and after the 1st of July, 1887, a new rate of duties went into effect. The former 10 per cent. became 16 per cent.; the 20 per cent. became 32 per cent.; the 30 per cent., 48 per cent.; and the 40 per cent., 64 per cent.

Customs Tariff of Brazil.

The following is a statement of the rates of import duty now levied under the New Customs Tariff of Brazil, which came into operation on the 1st of July, 1887.

NOTE.—Kilograms=2.204 lbs. avoirdupois; litre=0.22 imp. gallon; milreis=2s. 3d. (nominal value).

ARTICLES, ETC.		RATES OF DUTY. Réis.
I.—ANIMALS, ETC.		
Bees in hives		Free
Birds:—		
Canaries and other small birds	Each	1,000
Parrots and similar birds	"	2,400
Swans and other large birds	"	9,600
Not otherwise distinguished		Free
Silk-worms		"
Live stock:—		
Asses, mules and horses	Each	20,000
Oxen	"	5,000
Sheep, goats and swine	"	1,000
Fish:—		
Gold, silver and other fancy fish	"	1,000
Not otherwise specified		Free
Leeches	Kilog.	5,000

ARTICLES, ETC.		RATES OF DUTY
		Reis.
All other animals not classified:—		
Wild	Each	30,000
Not classified		Free
Skeletons, etc., intended for museums and cabinets of natural history	"	

II.—HAIR AND FEATHERS.

Hair, human, unworked	Kilog.	10,000
Hair of the horse or other animals	"	220
Hair of the hare, beaver, rabbit, etc	"	220
Fancy feathers:—		
Ostrich	"	2,000
Other kinds, for stuffing	"	600
Buttons made of hair, or every kind	"	2,000
Hair, worked up:—		
Wigs, fore-locks and other hairdresser's wares	"	30,000
Rings, bands, cords, bracelets and similar articles, with or without clasps or ornaments of gold, or any other metal or material	Gram	100
Pigs' or boars' bristles for shoemakers	Kilog.	640
Hats:—		
Of hare, otter or beaver skin and hair, plain	Each	2,200
Do, do. ornamented	"	4,500
Mattresses, bolsters and similar articles, with linings or coverings of skin or any tissue	Kilog.	900
Cords of every kind, in pieces or in articles, made up	"	250
Crinolines:—		
In pieces or in clippings	"	2,000
In articles, made up, of every kind, not otherwise classified, with or without mounting of steel or whalebone	Kilog.	3,200
Brushes:—		
With handle or back of ivory, mother-of-pearl, or tortoise-shell:		
For clothes, hats, hair, etc	Dozen	42,000
For nails, teeth, etc	"	6,500
With handle or back of bone, of buffalo-horn, or wood with or without incrustations:		
For cleaning metals, etc	Dozen	500
For clothes, hats or hair	"	4,000
For teeth, nails, combs and mustaches	"	1,000
For tables, etc	"	4,000
For shoes, harness and animals, with or without handle	"	1,000
Not otherwise mentioned	"	1,200
NOTE.—Brushes with which are combs, mirrors, etc., will pay an additional duty of 20 per cent. on the preceding duties.		
Feathers:—		
Peacock and similar feathers	Dozen	12,000
Of every kind, not otherwise mentioned	"	5,200
Corsets of hair	Each	2,000
Fans and fire-screens of feathers:—		
With edges or handles of bone, horn or wood	"	1,600
Do. of ivory, mother-of-pearl, or tortoise-shell	"	8,000
Plumes for soldiers' hats:—		
Of feathers	Gram	35
Of hair	Kilog.	3,200
Feathers:		
For flowers and ornaments:		
Small	"	5,000
Of any other kind, together or in parts	Gram	70
In flowers, single, or in bouquets and other ornaments	"	70
Quills for writing:		
Plain, with or without ornaments	Kilog.	2,000
Gilded or painted, with or without ornaments	"	16,000
Brushes, etc.—		
Fine, in quills, for drawing, etc	Kilog.	16,000
Common, with curved ends for tarring	Dozen	3,000
For painting and whitewashing	Kilog.	1,600
Of every other kind, flat or pointed, for tracings, plans, or for varnishing, including feather-brooms for painters and gilders	Kilog.	5,000

ARTICLES, ETC.		RATES OF DUTY Reis
For shaving:		
With handle of bone, or horn	"	2,400
Do. ivory, mother-of-pearl, or tortoise-shell	"	12,800
Brooms of every kind, with or without handles	Dozen	4,000
All articles manufactured of hair and feathers, not otherwise mentioned	48 per cent.	*ad val.*
NOTE.—Tissues of hair pay the same duties as those of wool, according to quality.		

III.—HIDES, SKINS AND LEATHER.

Raw hides of every kind:		
Green	Kilog.	80
Dried and salted	"	140
Prepared and tanned, with hair:—		
Ermine, beaver, otter, etc	"	3,500
Not specified	"	1,000
Prepared and tanned, without hair:—		
In clippings and scraps	"	200
In the piece, tanned and sole leather	"	600
Of the wild boar, chamois, morocco, or morocceed hides	Kilog.	1,000
Not otherwise mentioned:—		
White, or natural color	"	600
Dyed	"	1,000
Varnished, of any quality	"	2,200
Whips without handles	Dozen	3,591
Bridles for carriages:—		
Of white leather, dyed or varnished, plain, for single harness	Each	31,000
Do. do. with ornaments with common metal, for single harness	"	48,000
Do. do. do. of plated, silver-plated, or gilded metal, for single harness	Each	60,000
Of leather, raw or tanned, plain, for single harness	"	10,000
Do. do. with ornaments of common metal, for single harness	"	13,000
Do. for tramways, of white or dyed leather	"	14,000
Purses, bags, cases:—		
For sewing, plain or with silk, with or without ornaments	Kilog.	2,000
For travelling, hand, haversacks, etc., without ornaments, plain	"	1,400
Do. with ornaments of glass, porcelain, bone, wood, horn, iron, etc.	"	2,400
Do. with ornaments of ivory, mother-of-pearl, tortoise-shell, metal, silver-plated, or gilded, etc	Kilog.	5,000
Tobacco pouches	"	2,000
Game-bags, plain	Each	1,200
Do. with powder and shot flasks	"	1,800
Headstalls:—		
Of white, dyed or varnished leather, plain	"	1,400
Do. white ornaments of common metal	"	1,600
Do. silvered, or of metal plated or gilded	"	2,100
Of leather, raw or tanned	"	900
Halters	"	750
NOTE.—Harness without bridles and bridles without harness pay half the duties.		
Boots and shoes:—		
Boots, long, Hessian	Pair	10,000
Do. not specified	"	6,800
Ladies' boots and buskins:		
Of leather or skins of every kind, up to 22 centimetres long	"	1,100
Do. more than 22 centimetres long	"	2,800
Of cotton, wool, or linen tissues, up to 22 centimetres long	"	750
Do. more than 22 centimetres long	"	1,800
Of silk or other tissues mixed with silk, up to 22 centimetres long	"	2,500
Do. more than 22 centimetres long	"	6,000
Shoes:—		
Of leather or skin, or of cotton, wool, or linen tissues, up to 22 centimetres long	Pair	500
Do. more than 22 centimetres long	"	1,400
Of silk or other tissues mixed with silk, up to 22 centimetres long	Pair	1,400
Do. more than 22 centimetres long	"	3,000

Articles, etc.		Rates of Duty Pesos
Shoes:—		
Of silk or other tissues mixed with silk, up to 22 centimetres long	Pair	1,400
Do more than 22 centimetres long	"	2,800
Slippers and sandals:		
Of leather or skin, or of cotton, wool or linen tissue, up to 22 centimetres long	Pair	300
Do. more than 22 centimetres long	"	600
Of silk or other tissues mixed with silk, up to 22 centimetres long	Pair	1,400
Do. more than 22 centimetres long	"	2,800
Clogs of any kind	"	860
NOTE.—Boots of any tissue with high uppers of leather or of skin are dutiable as if they were wholly of leather or skin of any quality.		
Boots and buskins with high uppers for women and children, called ladies' boots and half-boots, which exceed in height, excluding the heel-piece, two-thirds the length of the sole, and shoes of every kind embroidered with gold or silver thread, pay a surtax of 20 per cent. on their respective duties.		
Shoes in which silk is simply used for embroidering, ornamenting etc. cannot be considered as shoes of tissues mixed with silk.		
Cuttings of every kind of shoes, stitched or lined, are considered as finished articles, but an allowance of 20 per cent. on their respective duties is made.		
Hats and bonnets of any kind	Each	1,800
Shot bags:—		
Single or with a single tube	Dozen	4,000
Double or two tubes, and those in the form of a powder flask	"	8,000
Straps	Each	560
Do. thick, for carriages:—		
Single	"	8,000
With ornaments of common metal	"	10,000
Do. plated, or of metal silver-plated or gilded	"	12,000
Horse collars:—		
Plain	"	2,300
With ornaments of common metal	"	3,600
Do. plated, or of metal, silver-plated or gilded	"	5,000
Cravats	Dozen	3,200
Paths of every kind	Each	1,800
Stirrup-leathers	Dec. yrd.	3,400
Gloves:—		
Of kid, including *gants de Suède*	"	9,000
Of chamois, beaver, etc.	"	5,600
Trunks of every size:—		
Covered with sheep leather, mill-cloth, etc. up to 60 centimetres long	Each	3,000
Do. from 60 to 80 centimetres long	"	7,500
Do. above 80 centimetres long	"	13,000
Of strong leather, varnished or not, up to 60 centimetres long	"	6,800
Do. from 60 to 80 centimetres long	"	14,000
Do. above 80 centimetres long	"	20,000
Hose and other articles of leather for pumps and for ships' use	Kilog.	1,100
Horse coverings and pads, skins for rugs or mats, of morocco, jaguar, goat, or any other skins	Kilog.	1,200
Breast pieces:—		
Of leather, white or dyed	Each	1,700
Do. varnished	"	3,400
Leggings or gaiters	Pair	3,000
Tips for billiard cues	Kilog.	1,600
Slippers:—		
Of leather, white or dyed	Dozen	4,200
Do. varnished	"	7,800
Saddles:—		
For men, covered with pig-leather or with pig or chamois leather, or of skin known as *zalea*	Each	14,000
Do. covered with sheep leather or with sheep and pig leather	"	6,000
For ladies and girls, covered with pig leather or with pig leather and velvet, or with velvet	Each	20,000

ARTICLES &c.		RATES OF DUTY Reis
Saddles:—		
Do. covered entirely with chamois, morocco, or sheep leathers, or having the seat solely of pig leather	Each	12,000
NOTE.—Saddles for men and for women, and all other articles for the use of travellers and persons entering by the frontiers are free from duty.		
The duties upon saddles do not include those of the harness with which they are imported.		
Bands, sewn or not, for hats	Kilog.	1,600
All articles not otherwise mentioned:—		
For shoemakers, of leather, white or dyed	"	3,200
Do. do. varnished	"	4,200
For curriers, for military and other outfit, with or without ornaments of common metal, of leather, white or dyed	Kilog.	3,200
Do. do. varnished	"	4,200

IV.—MEATS, FISH, OLEAGINOUS SUBSTANCES, AND OTHER ANIMAL PRODUCTS.

Oils and fats:—		
Of horse, whale, wolf, etc., prepared for oiling machines	Kilog.	180
Prepared for sewing machines, etc.	"	500
NOTE.—These duties do not apply to oils imported in casks: if the importation is made in demijohns they will pay 20 per cent. more, and in bottles, flasks, or pitchers, 50 per cent. including the duties on the receptacles.		
This note is not applicable to oils purified for sewing machines, etc.		
Lard or hog's-grease, rendered or prepared	Kilog.	200
Meat:—		
Beef and mutton, fresh for preserving in ice, etc.	"	70
Do. dried (*charqui*)	"	80
Of any kind, not otherwise mentioned, in brine or smoked	"	120
Hams, prepared in any way	"	450
Preserves of meat, tongues, cerveles, chitterlings, soups, jellies, and other preparations, not medicinal	Kilog.	600
Sausages	"	800
Extracts of meat	"	2,000
Wax:—		
For melting, unpurified, native, or raw	"	200
Prepared, in sticks, purified or clear, in cakes, white or yellow	"	600
Candles, common and plain, and small wax tapers	"	1,200
In articles not otherwise mentioned	"	3,000
Gum or gelatine:—		
Prepared for typography	"	300
Not otherwise mentioned	"	650
Spermaceti:—		
Raw or prepared, purified, in lumps or refined	"	400
In candles	"	500
Guano and other manures		Free
Milk prepared in any way	Kilog.	280
Tongues, tripe, etc. of pig, etc.:—		
Dried or salted	"	160
Preserved or prepared in any other manner	"	600
Butter, pure	"	800
Eggs of the pullet and other domestic fowls	"	100
Fish, not otherwise mentioned, shell-fish, oysters, and other molluscs and fish ova:—		
Dried, salted, or in brine	Kilog.	50
Fresh, in ice	"	50
Preserved and prepared in any manner	"	600
Cheeses of every kind	"	800
Soap, not perfumed:—		
Black or brown	"	60
Yellow	"	150
White	"	300
Blood of any animal, dried or prepared	"	20
Tallow or fat:—		
Raw or rendered	"	70
In candles and purified for pomades	"	320

ARTICLES, ETC.		RATES OF DUTY Reis.
Stearine:—		
In lumps	"	400
In candles	"	500
Bacon, salted or in brine	"	120
V.—IVORY, MOTHER-OF-PEARL, TORTOISE-SHELL, ETC.		
Ivory and mother-of-pearl, raw or prepared	Kilog.	640
Tortoise-shell (head and hoofs)	"	3,200
Whale-bone	"	260
Whelks, cauris, and shells not otherwise mentioned	"	300
Sponges:—		
Fine	"	14,000
Common, for house cleaning, etc	"	3,500
Bone:—		
Cuttle	"	640
Not otherwise mentioned	"	80
Pearls, raw	Gram	1,000
Horns:—		
Of the abada, unicorn, rhinoceros and sea-horse	Kilog.	160
Cattle	"	80
Buffalo and stag, unprepared	"	70
Hoofs of any kind, not otherwise mentioned	"	80
Fancy articles:—		
Of bone or horn	Kilog.	5,000
" ivory, mother-of-pearl, or tortoise-shell	"	24,000
With ornaments of gold or silver	"	40,000
Walking-sticks:—		
Of whale-bone, composition or prepared horn	"	6,400
" ivory	"	20,000
Snuff-boxes:—		
Of bone or horn	"	2,000
" ivory	"	12,800
" tortoise-shell or tortoise-shell and bone	"	16,000
NOTE.—Snuff-boxes having a small plate or incrustation of silver and gold will pay these duties, but those which, besides the plate, have other incrustations and ferrules of gold or silver will pay an additional duty of 50 per cent.		
Buttons:—		
For trousers, of bone or horn	Kilog.	400
Do. of ivory, mother-of-pearl, and tortoise-shell	"	4,800
Studs, with ornaments of the following and similar materials, excepting gold and silver, viz. bone or horn	Kilog.	1,400
Do. with incrustations or marqueterie of tortoise-shell or any other material	Kilog.	3,200
Do. of ivory, mother-of-pearl and tortoise-shell	"	12,800
Coral in beads and manufactured	"	5,000
Plates or sheets:—		
Of horn and windows for lanterns, etc	"	1,000
" ivory, for drawing, etc	"	8,000
Fans:—		
Of bone or horn	Each	1,600
" ivory, mother-of-pearl, or tortoise-shell	"	9,600
Shagreen	Kilog.	8
Combs:—		
Of bone and horn of any kind	"	2,000
" ivory	"	9,600
Of tortoise-shell:		
Hair-combs	"	20,000
Other	"	40,000
Pearls, strung	Gram	1,000
Powder horns	Kilog.	1,200
Ribs, of whale bone:—		
For corsets	"	2,000
For fire-arms &c.	"	800
All articles not otherwise mentioned:—		
Of bone or horn	"	2,800
" ivory or mother-of-pearl	"	16,000
" tortoise-shell	"	24,000
NOTE.—Articles in this class which have ornaments or incrusta-		

ARTICLES, ETC.	RATES OF DUTY	Reis
tions of gold or silver, and which are not especially provided for, pay double the above duties.		
VI.—FRUITS		
Green fruits, chestnuts, nuts, cocoa-nuts, filberts, almonds, olives of every kind	Kilog.	30
Fruits, dried, of every kind	"	180
All other fruits, nuts, etc. not otherwise mentioned:		
Preserved in brandy, sirup, paste or jelly	"	500
" in sugar, dried or with juice, and crystallised, or prepared in any other manner	Kilog.	350
VII.—VEGETABLES, FLOUR, AND CEREALS		
Millet and panicum	Kilog.	30
Rice, hulled or not, or crushed	"	25
Barley of every kind	"	30
Bran and stubble of every kind	"	15
Flours, fecula and prepared powders:—		
Of wheat	"	16
" of maize, rice, potatoes, barley, oats, rye, sago, tapioca, amylaceous starch or fecula, etc.	Kilog.	120
Milk foods	"	200
"Revalenta," "Barry's Food," and similar foods	"	1,000
Haricot beans of every kind	"	30
Pot herbs of every kind:—		
Dried or fresh, salted or in brine	"	30
Preserved in any manner, with or without mixture of fruits or vegetables	Kilog.	360
Food Pastes:—		
Common sea and lunch biscuits	"	30
Biscuits of any other kind, small biscuits	"	330
Macaroni, vermicelli, etc	"	120
Maize:—		
Angola millet (for small birds)	"	30
Of any other kind	"	15
Tomatoes:—		
Whole, fresh or in brine	"	30
Prepared in any other manner	"	360
Wheat in the grain		Free
Vegetables, flours and cereals not otherwise mentioned:—		
Dried	Kilog.	30
Preserved	"	360
VIII.—PLANTS, LEAVES, FLOWERS, FRUITS, SEEDS, ROOTS, BARKS, FODDER AND SPICES		
Living shrubs, trees and plants of every kind		Free
Garlic, loose, strung or in bunches	Kilog.	30
Berries, grains, beans, fruits, thistles, seeds, nuts, etc. used in dyeing, medicine, etc:—		
Saffron, bastard saffron or carthamus (seed)	Kilog.	1,000
Anise or sweet herb, common	"	300
Do. do. fine	"	1,000
Vanilla (beans)	"	16,000
Small cardamon (seed)	"	4,200
Tonka perfumed beans	"	3,200
Colocynth	"	1,200
Cumin	"	300
Gall-nut	"	160
Lidseed	"	100
Water-melon, with rind	"	200
Do. without rind	"	1,000
Nutmeg	"	1,500
Mustard, black or white	"	160
" of any kind, prepared or preserved	"	800
Beans (Ignatia amara)	"	1,200
Elder berries, myrtle, juniper berries	"	160
Sesamum	"	100
For gardening and for agricultural purposes		Free
Not otherwise mentioned	Kilog.	490

ARTICLES, ETC.		RATES OF DUTY Reis
Potatoes, edible, English etc.	Kilog.	10
Tamarinds	"	500
Barks and wood, medicinal and for dyeing:—		
Cinnamon bark	"	[illegible]
Oak, quercitron, American bark, Brazilian wood, log-wood, sumac, sandal-wood, lignum vitæ, sassafras, and any other kind of wood or bark for tanning or dyeing	KHog	50
Not otherwise specified	"	[illegible]
Onions:		
Loose and strung, or in bunches	"	80
Preserved, with or without other fruits or vegetables	"	360
Indian tea of any kind	"	1,500
Mushrooms, dry or preserved	"	[illegible]
Cloves (Indian)	"	[illegible]
Hay, oats, straw and other fodder, green or dried	"	[illegible]
Leaves, flowers, herbs, stalks, rushes, mosses, etc., for medicine and dyeing:—		
Saffron, bastard or carthamus (flowers)	"	1,200
Do. Spanish or Asiatic	"	16,000
Rosemary, leaves	"	160
Do. flowers	"	640
Lavender-spike (flower)	"	160
Cusso (Bavera anthelmintica)	"	1,280
Hops	"	120
Mallow, leaves	"	320
Do. flowers	"	640
Corsican, coraline, Island or Irish mosses	"	160
Orchil moss	"	[illegible]
Mace or nutmeg flower	"	8,200
Poppy flower, white, black or red	"	260
Not otherwise specified	"	480
Tobacco:—		
In cheroots	Hundred	5,100
In cigars	Kilog.	3,500
In leaves	"	[illegible]
For chewing, etc.	"	1,100
Cut for pipes and cigars	"	1,400
Snuff	"	3,000
Prepared in any other manner	"	3,500
Laurel leaves	"	160
Pimento:—		
Asiatic or black Malabar	"	160
Of any other kind, fresh, dried or preserved, with or without mixture of any fruits or vegetables	"	[illegible]
Roots and bulbs, for medicine, dyeing, etc.		
Indian saffron, cureuma or yellow ginger	"	[illegible]
Liquorice	"	[illegible]
Marshmallow, with or without bark or ground	"	240
Dog's grass and iris	"	120
Salep	"	1,600
For kitchen gardens, and, generally, for agricultural purposes		Free
Not otherwise mentioned	Kilog.	480
Spices not otherwise mentioned	"	1,000

NOTE.—Articles included in this class, if they are of a nature to be imported in the following conditions: pressed, scraped, grated or in powder, will be dutiable in the first three cases at the rate of 10 per cent. and in the latter case at the rate of 25 per cent. over and above the amount of the duties specified.

If the flowers, leaves, roots, seeds, etc., of the same plant, of which the several parts are dutiable at different rates, are imported together in the same package or mixed, so that it is not possible to separate them, the duty must be levied on that part paying the greatest duty.

IX.—VEGETABLE SIRUPS AND ESSENCES, ALCOHOLIC BEVERAGES, AND FERMENTED AND OTHER LIQUIDS.

Tar and pitch	Kilog.	15
Sugar:—		
Candy	"	560

ARTICLES &c.		RATES OF DUTY Reis
Sugar:		
Raisin or glucose	Kilog.	100
Of any other kind	"	240
Oil:—		
Sweet olive, etc.	Litre	[illegible]
Cotton	"	[illegible]
Not otherwise mentioned	"	100
(These duties are only applicable to oils imported in casks: oils imported in demijohns will be liable to a surtax of 25 per cent.; those imported in bottles, jars, flasks or other receptacles of stone, earthenware or glass, to a surtax of 50 per cent. including the duty on the receptacles.)		
Fermented beverages:—		
Beer:		
Milk and extract	Kilog.	[illegible]
Common of every kind	Litre	[illegible]
Hydromel, cider and other beverages, not otherwise mentioned	"	[illegible]
Lees:—		
Of oil	Kilog.	[illegible]
Of wine, liquid	"	[illegible]
Camphor	"	[illegible]
Cachou or Japanese earth	"	[illegible]
Vegetable wax:—		
Pure or plain	"	[illegible]
Composite or prepared	"	500
Gums, resins and natural balms:—		
Mastic, Indian	"	[illegible]
Do. elemi or elemi resin	"	[illegible]
Aloes of every kind	"	[illegible]
Ammoniac	"	[illegible]
Arabic, Acacia or Senegal	"	700
Assafœtida	"	500
Batatas	"	4,000
Copal, hard or soft	"	500
Scammony	"	10,000
Euphorbia	"	320
Guaicum	"	600
Incense or olibanum	"	[illegible]
Jalap, white or black	"	10,000
Lac	"	400
Peruvian gum	"	4,000
Mecca gum	"	[illegible]
Turpentine	"	[illegible]
Pitch-pine, prepared for instruments	"	1,200
Do. black and other kinds	"	10
Tola, dry or soft	"	2,400
Not otherwise mentioned	"	[illegible]
Liqueurs, common and sweet, of every kind	Litre	700
Alcoholic liquids and beverages:—		
Absinthe and kirsch	"	1,500
Alcohol, brandy, cognac, rum, whisky, cane brandy, etc.	"	4,000
Gin	"	260
NOTE.—Alcoholic liquids and beverages are dutiable according to the strength of the alcohol, to be determined by the Gay-Lussac alcohometer, the above duties being fixed for 100 degrees, at a temperature of 15 degrees centigrade.		
Manna of every kind	Kilog.	[illegible]
Opium, raw or solidified	"	[illegible]
Fruit syrups of every kind	"	120
Vinegar:—		
Common or for cooking, red or white	Litre	100
For preserving	Kilog.	[illegible]
Wines:—		
Sparkling, white or red, of every kind	Litre	1,200
Spirituous, such as Muscatel, Malmsey, Tokay, Constance, etc.	"	360
Dry, common, table and fermented	"	160
NOTE.—Wines in bottles or other receptacles of glass or faience will pay a surtax of 50 per cent. including the duties on the recepta-		

ARTICLES, ETC.		RATES OF DUTY Reis
cles. This note, however, is not applicable to sparkling wines of every kind.		
The duty on wines in casks includes that on the receptacles.		
Sirups, not medicinal of any kind	Kilog.	700
NOTE.—Articles in this category, if imported in one of the following conditions, viz: bruised, grated, scraped or in powder, will pay in the first three cases 10 per cent. and in the latter case 25 per cent. over and above the respective duties.		

X.—MATERIALS FOR PERFUMERY, DYEING, PAINTING, ETC.

Musk	Gram	300
Ultramarine of every kind	Kilog.	200
Bistre	"	300
Carmine	"	6,000
Prick-wood, carbonized (for drawing)	"	480
Blue ashes	"	200
Cochineal	"	400
Coral, fine, in powder	"	200
Aniline or fuchsine colors of every kind, etc., liquid or solid	"	1,000
Cork, pulverized or Spanish black	"	30
Artificial essences of every kind	"	3,000
Blacking for shoes:—		
Liquid	"	100
In paste or powder	"	320
Indigo	"	600
Animal or vegetable kermes	"	400
Lac of every color	"	300
Pencils:—		
Thick, for carpenters	"	600
For drawing or writing	"	1,600
For pencil-cases	"	4,000
Black or stone	"	350
Pastes or extracts for dyeing, liquid or solid:		
Of pastel and gall-nut, Campeche, Brazil, sandal-wood & sumac	"	120
Not otherwise mentioned	"	500
Powders for gilding	"	30
Coloring materials, such as alizarine, anchusine, bichine, curcumine, indigotine, hematine, brasiline, carthamine (extract of saffron) etc.	Kilog.	1,000
Size for gilding	"	300
Indian ink	"	300
Ochres:—		
Red, yellow and earth violet	"	15
King violet, etc	"	50
Oils, fixed, liquid and concrete:—		
Almond, sweet or bitter, and sesamum	"	500
Croton-tiglium	"	4,000
Euphorbia	"	3,200
Cod or skate liver	"	640
Male fern (ether)	"	3,000
Linseed:—		
Not purified or colored	"	70
Purified or not colored	"	200
Boiled	"	130
Nutmeg	"	3,500
Castor-oil:—		
Distilled	"	160
Pressed	"	500
Not otherwise mentioned (medicinal)	"	1,000
Pyroligneous or empyreumatic oils:—		
Cade oil	"	500
Naphtha	"	100
Petroleum, prepared or purified for illuminating (kerosene and gasoline)	Kilog.	100
Do. not prepared or raw, & residues from petroleum distillation	"	80
Not otherwise mentioned	"	1,000

ARTICLES, ETC.		RATES OF DUTY Reis
Volatile or essential oils:—		
Rosemary	Kilog	1,600
Lavender-spike	"	8,000
Orange-flower	"	16,000
Juniper	"	1,600
Mustard	"	16,000
Rose	"	80,000
Turpentine or spirits of turpentine	"	70
Not otherwise mentioned	"	6,000
Carmine paper	"	8,200
Perfumery	Kilog.	1,000
NOTE.—This article does not include essences and pure oils, but only those preparations which under the name of oils, extracts or essences are intended for the hair, linen, etc., and eau-de-Cologne, etc., used for perfuming: dentifrices of every kind; preparations used for dyeing; beautifying and preserving the skin or the hair: aromatic vinegars used for perfuming; powders for the hair, teeth, skin, etc.; pomades, etc., for the hair: soap in cakes, powder, paste or prepared in any other manner; aromatic and perfumed pastiles, tablettes and other similar articles not otherwise distinguished. Perfumes in pots, flasks or vases of porcelain, gilded or ornamented, and of No. 2 glass, will pay double the respective duties.		
Powders:—		
For shoes	Kilog.	80
Of ivory, calcined	"	800
For printing, colored, or for gilding or silvering	"	2,000
Animal black (calcined bones):—		
In lumps	"	10
In powder	"	80
Rouge	"	1,200
***Sigillata* earth**	"	600
Red chalk	"	600
Umber (Cologne or Oliveira)	"	240
Sumac	"	15
Sienna earth	"	800
Colors:—		
Ink, for writing:		
Liquid	"	180
In powder or paste	"	500
Ink for marking linen	"	1,600
For drawing:		
In boxes	"	2,000
In shells	Gram	15
In powder, paste or cakes	Kilog.	2,000
Prepared in water	"	60
Prepared in oil, etc.:		
For printing or lithography, and for painting houses, etc.	Kilog.	100
Fine, in tubes or cylinders of metal, etc	"	2,000
Green:—		
Compounded	"	120
Parisian, etc	"	320
Varnish:—		
Of tar	"	200
Not otherwise specified	"	600
NOTE.—Articles included in this category, if they are of a nature to be imported in one of the following conditions, viz.: bruised, grated, scraped, or in powder, will pay in the first three cases 10 per cent. and in the latter case 25 per cent. over and above the respective duties.		

XI.—CHEMICAL PRODUCTS, PHARMACEUTICAL COMPOSITIONS, AND MEDICAMENTS IN GENERAL.

Acetone or pyro-acetic spirit	Kilog.	1,000
Acetates or pyrolignites:—		
Of alumina	"	300
" ammonia, liquid or solid	"	240
" lead, liquid or crystallized, salt or vinegar of lead	"	200
" copper, ammoniacal	"	4,800

ARTICLES, ETC.		RATES OF DUTY Reis
Acetates or pyrolignites:—		
Do. crystallized or in powder	Kilog.	800
Of lithia	"	16,000
" silver	Gram	50
" cobalt	Kilog.	10,000
" iron	"	50
" mercury	"	5,000
" any metal, not otherwise distinguished	"	1,000
" alkaloids or organic bases	Gram	100
Acids:—		
Acetic, strong or crystallizable, and pure, of verdigris or glacial	Kilog.	80
Arsenious or white oxide of arsenic	"	30
Benzoic or flowers of benzoin	"	2,200
Bromic	"	9,000
Perchloric	"	2,400
Formic	"	4,000
Hydrochloric, chlorhydric or muriatic, pure or colorless	"	100
Do. impure or colored	"	15
Iodic, pure	"	3,500
Lactic	"	2,000
Nitric or azotic, pure, colorless	"	100
Do. impure or colored	"	30
Oxalic	"	80
Phosphoric, solid or glacial	"	1,600
Do. liquid	"	120
Pyrogallic	"	6,000
Pyroligneous, pyroacetic, or vinegar of wood	"	80
Sorbic	"	3,600
Succinic, volatile salts of amber	"	2,400
Sulphuric, oil or spirit of vitriol, pure or colorless	"	80
Do. impure or common	"	15
Sulphurous, liquid	"	60
Tartaric	"	80
Valerianic	"	4,000
Not otherwise mentioned	"	800
Aconite	Gram	240
Waters:—		
English	Kilog.	800
Distilled, of orange, rose and lettuce flowers	"	400
Do. not otherwise mentioned	"	800
Hemostatic of any kind and vulnerarie alcohol	"	1,600
Mineral, natural or artificial, of any kind	"	800
Albumen, animal or dried	"	1,600
Alkaloids or natural or artificial organic bases, etc., not otherwise mentioned	Gram	100
Alcohol, amylaceous	Kilog.	800
Guncotton	"	
Alumina, dry or gelatinous	"	
Ambergris	Gram	
Liquid ammonia, volatile alkali, or spirits of sal ammoniac	Kilog	
Amygdaline	Gram	
Amylene	Kilog.	
Antimoniates of potash, plain or diaphoretic antimony, purified or not	Kilog.	1,000
Do. of alkaloids	Gram	100
Antipyrene	"	30
Carburet of potash, of any description	Kilog.	12,000
Antraquinine and hydroquinine	Gram	30
"Apiol," pure	"	20
Arrobes for medicinal purposes	Kilog.	800
Arseniates and arsenites:—		
Of potash or of soda, pure	Kilog.	2,000
Do. impure, for the arts and industries	"	200
Of silver	Gram	80
" any metal, not otherwise specified	Kilog	2,000
" alkaloids or organic bases	Gram	100
Asparagine, pure	"	20
Sugar of milk, salt of milk, or lactine	Kilog	1,000

ARTICLES, ETC.		RATES OF DUTY Mills
Balms, prepared, of any kind, not otherwise mentioned	Kilog.	1,800
Benzine	"	160
Benzoates, metallic, of any kind	"	10,000
Do. of organic bases	Gram	100
Medicinal biscuits of any kind	Kilog.	1,000
"Bolas de Nancy"	"	1,000
Bromates:—		
Of manganese	Kilog.	800
" silver	Gram	50
" soda (sub or bi), or tinkal, melted or crystallized	Kilog.	160
" any metal, not otherwise mentioned	"	3,000
" alkaloids or organic bases	Gram	100
Bromine hydrated	Kilog.	20,000
Bromates of any description	"	11,000
Bromoformium or perbromure of formyle	"	30,000
Bromides, hydrobromates or bromhydrates:—		
Of ammonia	"	1,500
" iron	"	3,000
" lithia	"	14,000
" gold	Gram	300
" potash	Kilog.	2,400
" silver	Gram	60
" soda	Kilog.	2,400
" metals or metalloids, not otherwise mentioned	"	6,000
" alkaloids or organic bases	Gram	100
Brucite and its salts	"	60
Chemical re-agents (boxes of), for use in laboratories	35 per cent.	ad val.
Caffeine, theine and their salts	Gram	80
Cantharides	Kilog	4,000
Capsules and medicinal confections of any kind	"	2,000
Carbonates:—		
Of ammonia, concrete, volatile, alkali or sesquicarbonate of ammonia	"	320
" baryta	"	320
" bismuth	"	4,000
" cadmium	"	9,600
" lead or white lead	"	70
" copper	"	1,200
" iron (proto, sub or sesqui)	"	320
" lithia	"	10,000
" magnesia or white magnesia	"	320
Potassium:		
Impure, Dantzic, pearlash, or commercial	"	16
Purified, salt of tartar or vegetable alkali	"	160
Bicarbonate of potassium	"	250
Of silver	Gram	50
" soda, or barilla or mineral alkali:		
Common, black and raw	Kilog.	16
White, refined or purified, in crystals	"	80
Bicarbonate of soda	"	160
Of zinc, pure or precipitate	"	1,000
Do. impure, natural, or calamine stone prepared	"	240
Of any metal, not otherwise specified	"	2,400
" alkaloids or organic bases	Gram	100
Vegetable charcoal, pure or medicinal, of any kind	Kilog.	1,600
Chloroform, in powder or whole	"	12,000
Beer, medicinal, of any kind	"	800
Chloral of any kind	"	2,400
Chlorates:—		
Of potash or soda	"	320
" any metal not otherwise distinguished	"	1,200
" alkaloids or organic bases	Gram	100
Chloroform	Kilog.	2,400
Chlorides	"	5,200
Chloride of mercury (Corrosive sublimate)	"	10,000
Chlorides, hydrochlorate, or muriate:—		
Of ammonia	"	320

ARTICLES, ETC.		RATES OF DUTY Reis
Chloride, hydrochlorate, or muriate:—		
Of ammonia and mercury, or of ammonia and iron, of flowers of sal ammoniac	Kilog.	1,400
" antimony or butter of antimony, liquid	"	800
Do. do. solid or concrete	"	1,200
" arsenic	"	10,000
" baryta	"	500
" bismuth (sub)	"	4,000
" cadmium	"	16,000
" chalk or hypochloride of chalk, solidified or liquid	"	50
" calcium, dissolved or crystallized	"	800
" cerium	"	8,000
" chromium	Gram	20
" cobalt	Kilog.	10,000
" tin (proto, bi, or deuto), salts of tin, oxymuriate of tin	"	500
" iron, solid or liquid	"	800
" Do. sublimate	"	3,200
" iodium	Gram	20
" lithia	Kilog.	14,000
" magnesia	"	1,000
" mercury (proto, bi, or deuto), sweet mercury or white precipitate, calomel and corrosive sublimate	"	1,600
" gold, pure, or of gold and other metals	Gram	300
" palladium	"	60
" platinum, pure, or of platinum and other metals	"	100
" potash, liquid, or hypochloride of potash, Javelle water	Kilog.	240
" silver	Gram	50
" soda or hypochloride of soda (Labarraque water)	Kilog.	240
" sodium, common or cooking salt, coarse or impure	Litre	10
" Do refined or purified	Kilog.	80
" strontium or strontian	"	600
" metals or metalloids, not otherwise mentioned	"	1,600
" alkaloids or organic bases	Gram	100
Chocolate, medicinal, of any kind	Kilog.	1,000
Chromates:—		
Of bismuth	"	10,000
" lead, yellow or chrome yellow	"	240
" Do. red or vermilion	"	450
" potash	"	150
" silver	Gram	50
" metals, not elsewhere distinguished	Kilog.	2,000
" alkaloids or organic bases	Gram	100
Medicinal cigars and cigarettes of every kind	Kilog.	2,000
Cinchona	Gram	20
Citrates:—		
Of bismuth and ammonia	Kilog.	12,000
" iron, pure, or of iron and ammonia, or of iron and any other metal	Kilog.	2,000
" iron and quinine	Gram	10
" lithia	Kilog.	10,000
" silver	Gram	50
" metals not otherwise mentioned	Kilog.	1,500
" alkaloids or organic bases	Gram	100
Saponaceous coal tar	Kilog.	1,600
Codeine and its salts	Gram.	200
Collodion of every kind	Kilog.	2,000
Preserves, electuaries and medicinal opiates of any kind	Kilog.	1,000
Creosote	Kilog.	1,200
Cyanides, hydrocyanates, cyanhydrates, hydro-ferro cyanates, or prussiates:—		
Of iron (Prussian blue)	Kilog.	600
" gold	Gram	600
" potash, white	Kilog.	2,500
Do. yellow or vermilion	"	600
" silver	Gram	80
" metals or metalloids, not otherwise mentioned	Kilog.	3,000
" alkaloids or organic bases	Gram	100
Delphinite	"	300

ARTICLES, ETC.	RATES OF DUTY	Reis
Dextrin	Kilog.	250
Disinfectants of any kind, not otherwise mentioned	"	250
Digitaline	Gram	250
Elaterine, pure	"	300
Elaterium	"	150
Elixirs or medicinal liquors of any kind	Kilog.	1,000
Emetin:—		
Pure	Gram	500
Impure or of Codex	"	100
Ointments:—		
In paste or in magdaleons, of cantharides, or vesicatories	Kilog.	4,000
Do. not otherwise mentioned	"	2,000
Spread (plasters) or cerecloths, vesicatories of any kind	"	4,000
Do. waxed, oiled, or pharmaceutical taffetas	"	8,000
Do. adhesive, and those not otherwise mentioned	"	2,500
Ergotine	"	14,000
Bechic plants (the Swiss), etc	"	1,000
Medicinal spirits and alcohols of any kind, not otherwise specified	"	1,000
Sponges:—		
Calcined	"	1,600
Prepared or compressed	"	14,000
Ether:—		
Sulphuric, vitriolic	"	600
Not otherwise mentioned	"	1,000
Extracts:—		
Of Spanish or Asiatic saffron	"	36,000
" liquorice, dry or soft	"	650
" Calabar beans	"	30,000
" ipecacuanha	"	26,000
" opium	"	20,000
Not otherwise mentioned	"	5,000
Iron and steel:—		
Pure or pulverized	"	900
Iron reduced by hydrogen or by electricity	"	8,000
Fluorides, fluates, and hydrofluates:—		
Of calcium or fluate of lime	"	160
Not otherwise mentioned	"	4,800
Fluosilicates of any description	"	4,000
Formiates:—		
Metallic, of any kind	"	4,000
Of alkaloids	Gram	100
Medicinal jellies of any description	Kilog.	1,000
Medicinal gin of every kind	"	1,000
Homœopathic globules, prepared or not, of any kind	"	2,000
Gluten or vegetable fibrine	"	1,000
Glycerine	"	500
Glyceroles, glycerades, and glycerates	"	2,500
Medicinal drops of any kind	"	1,800
Guaranine	Gram	240
Helicine	Kilog.	8,000
Hydrate of sulphur, milk of sulphur, or magisterium of sulphur	"	800
Medicinal injections of any kind	"	1,000
Iodates:—		
Metallic, of any kind	"	16,000
Of alkaloids or organic bases	Gram	100
Iodo	Kilog.	20,000
Iodades, hydriodates, and iodhydragyrates:—		
Of lead	"	5,000
" iron:		
Pure, or with manganese	"	9,600
Of quinine, or of other alkaloids	Gram	100
" formyle or iodoform	Kilog.	24,000
" lithia	"	16,000
" mercury:		
Pure	"	7,000
Of morphia or other alkaloids	Gram	100
" gold	"	500

ARTICLES, ETC.		RATES OF DUTY Reis
Iodades, hydriodates, and iodhydragyrates:—		
Of potassium or potash	Kilog.	4,000
" silver	Gram	20
" platina	"	100
" sodium or soda	Kilog.	4,000
" zinc, and of strychnine, or of other alkaloids	Gram	100
" metals or metalloids, not otherwise mentioned	Kilog.	12,000
" alkaloids or organic bases	Gram	100
Iridine	Gram	40
Kairine	"	50
Lactophosphate of lime	Kilog.	3,000
Lactates:—		
Of lime	"	2,000
" iron, pure or combined with other salts	"	2,000
" metals, not otherwise distinguished	"	5,000
" alkaloids or organic bases	Gram	100
Laudanum (Rousseau or Sydenham)	Kilog.	4,000
"Le Roy" (purgative)	"	2,000
Lemonades (gaseous), of all kinds	"	800
Liniments and fomentations, not otherwise mentioned	"	2,000
Lupulin	"	1,800
Lycopodium	"	1,200
Magnesia, fluid (Murray and other descriptions)	"	800
Manganates and permanganates of every description	"	2,000
Manna sugar, crystallized	"	3,000
Cocoa butter	"	1,000
Honey:—		
Unprepared, or bees'	"	250
Prepared	"	1,000
Molybdates of any kind	Gram	15
Naphthaline and naphthol	Kilog.	3,000
Narcotine or Derosne salt	Gram	30
Nitrates or azotates:—		
Of ammonia	Kilog.	500
" baryta	"	800
" bismuth (sub) in powder, or in troches	"	4,000
" lime, pure	"	1,200
" cadmium	"	10,000
" of lead:		
Common or unprepared	"	200
Pure	"	600
" cerium	"	8,000
" cobalt, solid or liquid	"	8,000
" copper, crystallized	"	1,000
" lithia	"	20,000
" magnesia	"	1,200
" mercury:		
Proto or deuto	"	2,000
Soluble Hahnemann mercury	"	5,000
" nickel, solid or liquid	"	6,000
" potash:		
Impure, nitre, salts of nitre	"	50
Pure	"	200
" silver crystallized, or smelted	Gram	50
" soda, refined or unrefined	Kilog.	100
" strontian	"	250
" uranium	"	15,000
" metals, not otherwise mentioned	"	1,800
" alkaloids or organic bases	Gram	100
Nitrites or azotites of all kinds	Kilog.	3,200
Nitrobenzine or essence of Myrbane	"	1,200
Nitroprussiates of any kind	"	3,200
Opsine, pure or common	"	400
Opodeldoc	"	2,000
Oxalates:—		
Of bismuth	"	4,000
" cerium	"	5,000
" nickel	"	6,000

ARTICLES, ETC.		RATES OF DUTY Réis
Oxalates:—		
Of lithia or lithium	Kilog.	20,000
" potash, neutral or acid	"	800
" silver	"	30,000
" metals, not otherwise mentioned	"	2,000
" alkaloids or organic bases	Gram	100
Oxychlorides:—		
Of bismuth	Kilog.	4,000
" any other metal	"	2,000
Oxides:—		
Of barium or baryta (proto or bi)	"	3,500
" bismuth	"	4,000
" cadmium	"	10,000
" cerium	"	16,000
" lead:		
Yellow or massicot and vermillion, blue and vitreous, litharge or gold litharge	Kilog.	50
White siccative	"	160
" cobalt	"	12,000
" iron:		
Black and red, or colcothar	"	250
(Per) or peroxyde of iron, hydrated, gelatinous	"	500
" lithium or lithia	"	16,000
" magnesia:		
Calcined, common	"	1,000
Calcined, "Henry"	"	4,000
" manganese (per or bi)	"	40
" mercury (proto, bi, or deuto), mercurious oxide, mercuric salt	Kilog.	2,000
Oxides:—		
Of nickel	Kilog.	3,000
" gold	Gram	500
" platinum	"	800
" potassium or potash:		
Pure or alcoholic potash	Kilog.	3,000
Impure, caustic potash	"	120
" silver	Gram	50
" sodium or soda:		
Pure or alcoholic soda	Kilog.	3,000
Impure or caustic soda	"	120
Liquid	"	30
" uranium	"	16,000
" zinc:		
Impure (white) or cerase of zinc	"	70
Impure dust	"	500
Pure, sublimate, flowers of zinc	"	800
" any metal, not otherwise mentioned	"	800
Pancreatine, pure	Gram	30
"Papaina"	"	60
Chemical or medicinal papers of any kind	Kilog.	2,000
Pectoral or medicinal lozenges of any kind	"	1,000
Medicinal pastilles or tablets of any kind	"	1,000
Pepsine	"	4,000
Phenates:—		
Of soda (phenol of soda) and other mineral bases	"	2,500
" alkaloids or organic bases	Gram	100
Medicinal pearls of any kinds	Kilog.	3,200
Phosphates, pyrophosphates and metaphosphates:—		
Of alumina	"	4,000
" lime	"	800
" cobalt	"	11,000
" iron:		
Simple (proto or deuto)	"	1,500
Of manganese and of other metals, and (pyro) simple, citro-ammoniacal, and of soda, liquid or solid	Kilog.	3,000
Pyrophosphates of iron and of quinine	Gram	50
" lithium or lithia	Kilog.	16,000
" silver	"	30,000

ARTICLES, ETC.		RATES OF DUTY Reis
Phosphates, pyrophosphates, and metaphosphates:—		
Of nickel	Kilog.	8,000
" soda:		
Phosphate	"	500
Pyrophospate or metaphosphate and of ammonia	"	1,500
" any metal, not otherwise mentioned	"	2,400
" alkaloids or organic bases	Gram	40
Phosphites and hypophosphites:—		
Of any metal	Kilog.	6,000
" alkaloids or organic bases	Gram	100
Phosphurets of all kinds	Kilog.	5,000
Medicinal pills, balls and grains of every kind	"	4,800
Peperine	Gram	40
Podophylin	"	15
Stag-horn, raw, or in powder or calcined	Kilog.	600
Medicinal powders, compounded:—		
Dover or ipecacuanha	"	5,000
James or antimonial powders	"	4,000
Of pepsine of any kind	"	20,000
" pancreatine, of any kind	"	12,000
Seidlitz, or any kind not otherwise specified	"	2,400
Pyridine	"	6,000
Quinates of any kind	"	10,000
Quinine and quinidine, and salts of the same, not otherwise mentioned	Gram	50
Quinium of any kind	"	16
Medicinal soap of any kind	Kilog.	1,000
Saccharates, saccharoles and saccharides	"	1,800
Salts:—		
For the manufacture of ice	"	160
Vichy, for bathing and drinking and Carlsbad	"	1,300
Of any other description	"	2,400
Salicine	Gram	10
Sarsaparilla (Sands, Bristol, Ayer and other fluid extracts)	Kilog.	2,000
Santonine	"	10,000
Silicates:—		
Pure, for medicinal use	"	1,200
Impure, for the arts, liquid or solid	"	80
Stearates:—		
Of any metal	"	2,000
" alkaloids or organic bases	Gram	100
Strychnine	"	50
Succinates of any kind	"	16
Sulphates and hyposulphates:—		
Of alumina:		
And potash, alum stone, crystalized	Kilog.	60
Do do calcined	"	600
And of ammonia and other bases	"	400
" ammonia	"	400
" baryta, common, heavy spar or Bologne stone, and artificial or precipitate	Kilog.	650
" cadmium	"	7,000
" lime or plaster, pure or precipitate	"	500
" cerium	"	6,000
" lead	"	500
" cobalt	"	7,000
" copper:		
Pure, blue vitrol or blue copperas	"	50
Of ammonia or ammoniacal	"	1,600
" iron:		
Impure, green vitrol or common green copperas	"	10
Pure salts of iron	"	100
" ammonia or other bases	"	350
" lithia	"	10,000
" magnesia, Epsom salts	"	40
" potash, neutral, Duobus salts, polychrest salts, and acid or bisulphate of potash	Kilog.	300
" silver	"	40,000

ARTICLES, ETC.		RATES OF DUTY Reis
Sulphates, and hyposulphates:		
Of quinine, neutral or acid	Kilog.	10,000
" soda:		
Neutral or Glauber salts	"	40
Acid or bisulphate of soda	"	300
" strontian:		
Natural or in the lump	"	300
Artificial or precipitate	"	1,000
" zinc, white vitrol or white copperas	"	160
" any metal, not otherwise mentioned	"	1,600
" alkaloids or organic bases	Gram	100
Sulphites, bisulphites and hyposulphites:		
Of soda	Kilog.	160
" any metal not otherwise distinguished	"	800
" alkaloids or organic bases	Gram	160
Sulphocyanides of any kind	Kilog.	2,000
Sulphides, hydrosulphates and sulphydrates:		
Of antimony:		
Native or crude antimony	Kilog.	70
Of sulphur coated with antimony	"	1,000
Hydrated or mineral kermes	"	2,000
Vitrified or antimony glass	"	500
" arsenic, yellow or red	"	250
" carbon, impure	"	320
" lead, natural, or galena	"	250
" iron	"	250
" copper	"	200
" mercury, black mineral, and (deuto or bi), yellow or red	"	1,200
" silver	"	30,000
" any metal or metalloid not otherwise specified	"	1,000
Suppositories of any kind	"	2,000
Tannates:—		
Of any metal	"	4,500
" alkaloids or organic bases	Gram	100
Tanning, pure, or tannic acid	Kilog.	1,600
Tartrates:—		
Of bismuth	"	4,000
" iron, pure, and of potash and of ammonia or amoniacal, and of manganese (manganesiferous iron)	Kilog.	1,800
" potash:		
Neutral or soluble tartar of potash (vegetable salts) and of emetic antimony	Kilog.	1,000
Acid (bi):		
Pure, or cream of tartar, crystallized or in powder	Kilog.	400
Do. soluble	"	900
Impure, crude tartar or wine lees	"	70
" silver	Gram	50
" soda, neutral or acid, and of potash, Seignette salts	Kilog.	1,900
" metals, not otherwise mentioned	"	2,000
" alkaloids or organic bases	Gram	100
Turpentine, distilled	Kilog.	800
Theriac and diascordium	"	1,000
Alcoholic dyes:—		
Of musk	"	6,000
" ambergris	"	6,000
" saffron	"	4,000
" vanilla	"	4,000
" haschich	"	8,000
" green plants and those not otherwise mentioned	"	1,000
NOTE.—Etherated dyes or etherolatures will pay 25 per cent. over and above the respective duties.		
Troches and perfumes:—		
Mentol	Kilog.	5,000
Not otherwise mentioned	"	1,000
Tungstates of any kind	Kilog.	6,000
Medicinal salves, cerates, and pomades of any kind	"	1,000
Urea and its salts	Gram	40

ARTICLES, ETC.		RATES OF DUTY Reis
Valerianates:—		
Of metal of every kind	Kilog.	10,000
" quinine	Gram	25
" alkaloids or organic bases not otherwise mentioned	"	100
Vanadiates of any kind	Kilog.	14,000
Vaseline, white or yellow	"	1,000
Medicinal vinegars of every kind	"	1,000
Medicinal wines:—		
Bitters	"	320
Vermouth	"	320
Not otherwise distinguished	"	1,000
Medicinal sirups of any kind	"	760
Xyline	"	4,000
Chemical products, natural or artificial, pharmaceutical preparations and medicaments in general, not otherwise mentioned...48 *per cent. ad val.*		
NOTE.—Articles included in this category, if they are of a nature to be imported in the following conditions, viz.:—bruised, scraped, grated, and in powder, will pay, in the first three cases, 10 per cent., and in the latter case 25 per cent. over and above the respective duties.		

XII.—WOOD.

Cork or cork bark	Kilog.	20
Wood in blocks:—		
Oak and teak:		
Up to 10 centimetres thick and up to 10 metres long	Metre	650
Do. and more than 10 metres long	"	1,000
More than 10 and up to 20 centimetres thick, up to 10 metres long	"	1,300
Do. more than 10 metres long	"	1,600
More than 20 and up to 40 centimetres thick, up to 10 metres long	"	2,100
Do. more than 10 metres long	"	4,600
More than 40 and up to 60 centimetres thick, up to 10 metres long	"	5,800
Do. more than 10 metres long	"	7,700
More than 60 centimetres thick, and up to 10 metres long	"	11,500
Do. more than 10 metres long	"	15,300
Pine, or any wood not otherwise mentioned:		
Up to 10 centimetres thick, and up to 10 metres long	"	350
Do. more than 10 metres long	"	500
More than 10 and up to 20 centimetres thick, up to 10 metres long	"	650
Do. more than 10 metres long	"	800
More than 20 and up to 40 centimetres thick, up to 10 metres long	"	1,200
Do. more than 10 metres long	"	2,000
More than 40 and up to 60 centimetres thick, up to 10 metres long	"	2,900
Do. more than 10 metres long	"	4,000
More than 60 centimetres thick, and up to 10 metres long	"	5,800
Do. more than 10 metres long	"	6,800
Planks, etc.		
Of mahogany, satin-wood, and other carpenters' woods:		
In planks and joists	Kilog.	100
" thin sheets	"	450
Of oak and teak	C. Metre	23,000
" pine or any wood not otherwise mentioned	"	9,200
NOTE—Pieces of wood dovetailed or prepared for building, and other purposes, not being specially classified in the tariff, are included under article 419.		
Staves	Kilog.	80
Needles for knitting, etc.	"	2,000
Needle cases	"	2,000
Cupboards and shelves:—		
Of common wood:		
Up to 1 m. 50 long	Each	11,200
More than 1 m. 50 long	"	19,200
Of fine wood:		
Up to 1 m. 50 long	"	23,000
More than 1 m. 50 long	"	40,200
NOTE—Cupboards with shelves will pay an additional duty of 20 per cent. over and above the respective duties.		

ARTICLES, ETC.		RATES OF DUTY Reis
Hoops:—		
For masts or sieves	Dozen	600
For barrels or casks	"	1,000
Saddle-trees	"	1,000
Bagatelle boards:—		
Of common wood	Each	12,000
" fine wood	"	40,000
NOTE.—These duties do not include those on the balls and cues.		
Trunks and cases:—		
Of deal, simply planed:		
Not mounted	Kilog.	80
Mounted, up to 80 centimetres long	Each	800
Do, more than 80 centimetres long	"	1,600
Of common wood, painted or covered with sailcloth or oilcloth:		
Up to 60 centimetres long	"	2,500
From 60 up to 80 centimetres long	"	4,500
More than 80 centimetres long	"	14,000
Covered with leather of any kind or zinc:		
Up to 60 centimetres long	"	5,000
From 60 to 80 centimetres long	"	8,500
More than 80 centimetres long	"	15,000
Of camphor, sandal or any other fine wood:		
Up to 60 centimetres long	"	5,000
From 60 to 80 centimetres long	"	10,000
More than 80 centimetres long	"	14,000
NOTE.—Trunks in covers of leather or skin or any tissue of cotton, wool or linen, will pay a surtax of 20 per cent.		
Benches, stools, etc.:—		
Small, of any kind, for the feet	Each	500
Reversible or folding with seats, of any kind	"	900
With seat of common or fine straw, for piano, harp, etc., of common wood	Each	3,000
Do. of fine wood	"	4,000
Of tree branches (rustic)	"	1,000
Trays:—		
Plain, painted, or varnished, and with or without ornaments	Kilog.	1,000
Chinese, with or without ornaments of mother-of-pearl, etc	"	3,500
Basins and small vases	45 per cent. *ad val.*	
Frames for embroidering:—		
Of common wood	Kilog.	200
" fine wood	"	1,500
Bungs for barrels and pipes	"	200
Canes:—		
With head of bone, horn, composition, wood, or common metal	Doz.	4,000
With head of ivory, mother-of-pearl and tortoise-shell	"	11,500
With head of gold, silver, or with ornaments of metal, or with precious stones	45 per cent. *ad val.*	
Cradles:—		
Of common wood	Each	7,500
" fine wood	"	18,000
NOTE:—Cradles, which have the sides and head covered with fine straw, will pay a surtax of 30 per cent. on the respective duties.		
Bidets:—		
Of common wood	Each	4,500
" fine wood	"	8,000
NOTE:—These duties include those on the vases imported with the bidets and which form part of them.		
Billiard tables:—		
Of common wood	Each	100,000
" fine wood	"	180,000
NOTE:—These duties do not include those on the balls, cues and other accessories, but simply those on the cloth, etc., forming integral parts of billiard tables.		
Screens:—		
Covered with cloth or paper	Each	16,000
Entirely of wood	"	50,000
Boxes:—		
Of box-wood for snuff, etc	Kilog.	1,500

ARTICLES, ETC.		RATES OF DUTY Reis
Boxes:		
Of beach or pine wood:		
Small, for sticks of sealing-wax, for druggists, etc.	Kilog.	1,800
Large, in sets of three or single, painted or not	"	800
Balls:—		
Small, for billiards, bagatelle, etc.	"	1,600
Large, for bowling, etc.	"	820
Buttons	"	650
Racks:—		
Large, for clothes, etc., of common wood	Each	5,000
Do. of fine wood	"	10,000
Small, for towels, for hanging or for attaching to walls, of common wood	Kilog.	700
Do. of fine wood	"	1,800
Handles and heads:—		
For canes, umbrellas, small instruments and tools	"	500
For pens and for crocheting	"	1
" any other use	48 per cent. *ad. val.*	
NOTE:—Handles for umbrellas, furnished with heads of ivory, mother-of-pearl, or tortoise-shell, pay a surtax of 50 per cent. on their respective duties.		
Chairs:—		
Of common wood:		
With seat of wood, of bent wood, with arms	Each	8,000
Do. do. without arms	"	1,500
Do. of turned wood, with arms	"	1,000
Do. do. without arms	"	500
With seat of straw, with arms	"	4,000
Do. without arms	"	2,000
Rocking, folding, or extending, with arms	"	4,200
Do. without arms	"	2,800
For children	"	1,500
Of fine wood:		
With seat of straw, with arms	"	8,600
Do. without arms	"	4,500
Rocking, folding, or extending, with arms	"	11,000
Do. without arms	"	6,000
For children	"	3,000
Garden, folding	"	400
Do. of tree branches, with or without bark	"	600
Not otherwise provided for:		
Of common wood	48 per cent. *ad. val.*	
" fine wood	60 per cent. *ad. val.*	
NOTE:—Chairs with the sides of fine straw, will pay a surtax of 30 per cent. over the respective duties.		
Beds:—		
Of common wood:		
Single (not exceeding 1 m. 10 inch in width)	Each	14,000
Double	"	20,000
For children	"	7,000
Of fine wood:		
Single	"	35,000
Double	"	60,000
For children	"	18,000
NOTE:—Those which have the foot, sides, or head with fine straw, will pay a surtax of 30 per cent. over the respective duties.		
Hats of esparto:—		
With ornaments	Each	600
Without ornaments	"	1,200
Spoons, knives, forks, etc.:—		
Of box, or of common wood of any kind	Kilog.	2,500
" ebony or any other fine wood	"	8,000
Chests of drawers:—		
Of common wood:		
Up to three drawers	Each	8,000
More than three drawers	"	13,000
With paper-holders or desks	"	20,000

ARTICLES, ETC.		RATES OF DUTY Reis
Chests of drawers:		
Of fine wood:		
Up to three drawers	Each	21,000
More than three drawers	"	35,000
With paper-holders or desks	"	54,000
NOTE.—Tables of marble or any other material, and mirrors which form part of chests of drawers, and are imported at the same time, will pay duty separately, according to quality.		
Brackets:—		
Of common wood:		
Up to 80 centimetres long	Each	5,600
Up to 1 m. 50 long	"	16,000
More than 1 m. 50 long	"	24,000
Of fine wood:		
Up to 80 centimetres long	"	16,000
Up to 1 m. 50 long	"	25,000
More than 1 m. 50 long	"	44,000
NOTE.—Tables of marble or any other material, and mirrors which form parts of brackets, pay duties separately.		
"Dunkerques" pay a surtax of 16 per cent. on the respective duties.		
Cork, manufactured in stoppers, etc.	Kilog.	180
Canopies for beds:—		
Of common wood	Each	5,000
" fine wood	"	10,000
Boot-jacks	"	800
Shapes for shoes, hats, etc	Kilog.	800
Cruet-stands:—		
Of common wood, painted or varnished	"	2,000
" fine wood	"	5,000
NOTE.—Bottles and other articles which accompany cruet-stands will pay duty separately.		
Platters, cupels, and tubes of any kind	Kilog.	200
Knee-stools:—		
Of common wood	Each	6,500
" fine wood	"	12,000
Wardrobes:—		
Of common wood	"	30,000
" fine wood	"	60,000
NOTE.—Wardrobes with more than one compartment will pay a surtax of 50 per cent. for each compartment in excess, and if they are provided with glass, they will pay duty separately.		
Rings, knobs, etc., for curtains, hangings, doors and furniture:—		
Plain or varnished	Kilog.	900
Gilded or imitation of gilt	"	1,800
Washstands:—		
Of common wood:		
Round	Each	3,000
Table, with or without drawers, up to 80 centimetres long	"	4,000
Do. more than 80 centimetres long	"	9,000
With cupboard or compartment	"	15,000
Of fine wood;		
Round	"	6,500
Table, with or without drawers, up to 80 centimetres long	"	12,000
Do. more than 80 centimetres long	"	22,000
With cupboard or compartment	"	36,000
NOTE—These duties do not include those on parts and accessories of faïence, porcelain, glass or crystal, or any other material belonging to the washstands, but solely those on the marbles which form part of them and which accompany them. Washstands with mouldings and those with frames and mirrors pay a surtax of 20 per cent. on the respective duties.		
Fans:—		
Of common wood, plain or varnished, gilded or silvered, plain or openworked	Each	800
Of sandal wood, Chinese, etc	"	2,500
Tables:—		
Of common wood:		
Centre tables	"	8,000

ARTICLES, ETC.		RATES OF DUTY. Reis
Tables:		
Tea, working, writing, playing, etc	Each	7,000
Small, with leg in the centre	"	1,800
Do. of any kind, not otherwise mentioned	"	3,500
Dining, up to 6 metres long	"	13,000
Do. more than 6 metres long	"	35,000
Of fine wood:		
Centre tables	"	26,000
Tea, working, writing, playing, etc	"	14,000
Small, with leg in the centre	"	5,600
Do. of any kind, not otherwise mentioned	"	9,000
Dining, up to 6 metres long	"	26,000
Do. more than 6 metres long	"	66,000
Of tree branches, with bark, etc	"	2,250
NOTE.—These duties do not include those on the marbles or other articles which accompany the tables and form part of them. Coffee tables, more then one metre long, are considered as centre tables.		
Pulleys, pulley blocks, etc	Kilog.	250
Mouldings, mounted or not, including flowers, threads and cords:—		
Plain, or with plaster	Kilog.	500
Painted, varnished or gilded	"	1,000
Tooth-picks	"	500
Pedestals or stands for busts, music stands and flower stands:—		
Plain, painted or varnished	"	900
Gilded, or imitation of gilt	"	1,800
Combs of any description	"	2,000
Printers' forms		Free
Bracelets or other ornaments of sandal or similar wood, plain or with incrustation of any other material	Kilog.	10,000
Rulers	"	2,400
Oars	Metre	160
Night commodes:—		
Of common wood:		
Plain or with back	Each	4,000
Of fine wood:		
Plain or with back	"	9,000
Writing tables:—		
Of common wood:		
Small, for women, plain or with shelf	Each	18,000
Large, for men	"	28,000
Do for office	"	36,000
Of fine wood:		
Small, for women, plain or with shelf	"	25,000
Large, for men	"	54,000
Do for office	"	90,000
Sofas:—		
Of common wood:		
Small, with or without back, causeuses, long chairs, etc	"	12,500
Large, with or without backs (divans)	"	18,000
Of fine wood:		
Small, with or without back, causeuses, long chairs, etc	"	24,000
Large, with or without backs (divans)	"	36,000
Sofa-beds or bed-sofas, of common wood	"	12,500
Of tree branches, with bark, etc., for gardens	"	2,500
NOTE.—The duties on sofas without backs (divans) are applicable to those sofas of which the padding and springs are covered with canvas or some other common tissue; if they are imported with the latter trimmed, they will pay the same duties, and also those specified in the second paragraph of the note attached to this category. In the duties are included those on the bolsters, which form part of the sofas, and are imported at the same time. Small sofas are those which do not exceed 1 m. 35 in length.		
Billiard and bagatelle cues	Each	500
Strips of wood, plain or colored, for blinds	Kilog.	800
Taps, of any kind	"	320
Shoe-horns, of wood	"	160
Toilet tables:—		
Of common wood, with or without drawers	Each	18,000

ARTICLES, ETC.		RATES OF DUTY Reis
Toilet Tables:		
Of fine wood	Each	25,000
NOTE.—These duties do not include those on the marble and mirrors which form part of the tables.		
Window blinds, with or without pulleys, etc	Each	3,000
Vessels for liquor, etc.:—		
Measures of any kind not otherwise mentioned, dry or liquid	Kilog.	300
Buckets, baskets, and vats, with or without hoops of iron or copper	"	200
Barrels, large and small:		
Entire, empty and finished	Each	800
Old or unmounted	Kilog.	80
Pipes, tuns and half pipes:		
Entire, empty and finished	Each	2,000
Old or unmounted	Kilog.	80
Venetian blinds, for windows or doors, with pulleys and other accessories	"	6,500
Manufactures not otherwise mentioned:—		
Turned:		
Of wood of any kind	"	6,000
" wood pulp, moulded	"	2,000
Furniture:		
Of common wood	40 per cent.	*ad val.*
" fine wood	60 per cent.	*ad val.*
Parts for the construction of houses, or for any other purpose of construction	20 per cent.	*ad val.*
All other	40 per cent.	*ad val.*

NOTE.—The duties on chairs, tables, sofas, and other furniture or articles for domestic use do not apply to articles plain or with mouldings: those which are gilt or which are ornamented with sculpture or incrustations of wood, mother-of-pearl, ivory, or common metal, will pay, in the first case, double, or in the other case, 30 per cent. over and above the respective duties, unless the incrustation or sculpture is insignificant.

Articles included in this category which are trimmed or lined with tissues of silk will pay 50 per cent. more; of tissues of wool or hair, 40 per cent. more; of morocco or any other skin, 30 per cent.; of tissues of linen or cotton, 20 per cent.; and those which are imported in order to be trimmed will enjoy an abatement of 30 per cent.

The following are considered as common wood: Pine, beech, ash and cherry; and the following as fine wood: pear, yellow-wood, nut-wood, oak, sycamore, mahogany, maple, satin-wood, rosewood, etc.; articles lined with the above-mentioned woods, covered with coatings of paste, plain or with frieze or gilt thread, as well as those of Chinese varnish or of wood varnished.

Parts, detached and separate, made up and adjusted, polished or finished, which do not, at the time of declaration, form the complete object to which they belong, will pay 800 reis. per kilogram, if they are of fine wood, and 400 reis. if they are of common wood.

XIII.—CANE, BAMBOO, RUSHES, OSIER, ETC.

Cane:—		
Indian and bamboo	Kilog.	200
Of any other kind	"	100
Rushes:—		
Raw	"	200
Dried in straw, drawn or prepared in any other manner	"	800
Osier, unprepared or in bundles	"	80
Walking-sticks:—		
With head of bone, horn, composition, wood or common metal	Doz.	4,000
Do. of ivory, mother-of-pearl, or tortoise-shell	"	11,500
Do. of gold or silver, or with precious stones	45 p c	*ad val.*
Cradles	Each	3,000
Sticks for parasols	Kilog.	500

NOTE—Sticks with handles of ivory, mother-of-pearl, or tortoise-shell pay a surtax of 50 per cent.

ARTICLES, ETC.		RATES OF DUTY. Reis
Chairs:—		
Without arms	Each	2,000
With arms	"	4,000
For children	"	1,500
Rocking, and those not otherwise mentioned	"	6,000
Cars and carriages for children, with or without wheels:—		
Plain	"	3,000
Lined or upholstered	"	6,500
Baskets, hampers, panniers, etc.:—		
For sewing and other purposes, with or without accessories:		
Plain	Kilog.	2,600
Embroidered, ornamented, or lined with silk	"	4,800
Large, for linen, bottles, etc	"	350
Common, for earthworks, etc	"	80
Paper, market, bread, etc	"	1,000
With accessories for travelling, etc.:—		
Of glass, bone, horn, wood, &c	"	1,400
Of mother-of-pearl, ivory, silver-plated metal, etc	"	2,000
Hats:—		
Plain	Each	700
Trimmed	"	1,200
Washstands	"	2,000
Tables	"	4,800
Pedestals and flower stands	Kilog.	2,000
Sofas	Each	9,600
Sticks:—		
For stays	Kilog.	2,000
For other uses	"	800
Articles made up not otherwise mentioned	48 p c *ad val.*	

XIV.—STRAW, ESPARTO, AGAVE, PIASSAVA, AND OTHER VEGETABLE SUBSTANCES.

Raw prepared and worked up in any manner, painted or dressed:—		
For cigarettes, loose, or in bundles or small books	Kilog.	2,000
For other purposes	"	20
In threads:—		
Plain	"	160
Twisted or sewing, of every description, in clews or bobbins	"	1,000
Chilian or any other kind of straw, for hats, mats, and similar tissues	"	650
Paina, (kind of cotton) of any description	"	350
Vegetable hair and any similar fibre for stuffing mattresses and cushions	"	90
Fans and fire screens	Doz.	900
Wisps of esparto, etc	Kilog.	200
Bonnets, with or without ornaments	Each	500
Brushes or gloves for cleaning animals	Doz.	1,000
Bridles:—		
Plain	Each	1,000
With ornaments of common metal	"	1,200
For prisons (halters)	"	600
NOTE—Bridles without harness, and harness without bridles, only pay half the duties.		
Matting:—		
Of esparto, etc	Kilog.	100
Of cacao fibre:—		
Plain	"	250
Embroidered or trimmed with wool, linen or cotton	"	500
Baskets, small, of straw	Each	500
Baskets, panniers, hampers, etc.:—		
Sewing and other kinds, with or without accessories, plain	Kilog.	2,00
Do. embroidered, ornamented, or lined with silk	"	4,800
Large, for linen, bottles, etc	"	350
Common, for earth-works, etc	"	80
Market baskets, etc	"	1,000
With accessories for travelling, etc.—		
Of glass, bone, horn, wood, etc	"	1,400
Of mother-of-pearl, ivory, metal, silver-plated, etc	"	2,000

ARTICLES, ETC.		RATES OF DUTY Reis
Hats:—		
Of Chilian, Peruvian, or Manila straw	Each	2,400
Of Italian and similar straw, without ornaments	"	1,000
Of rice, oat, palm and similar straws, without ornaments	"	700
Of all other kinds, with ornaments	48 p c *ad val.*	
Slippers or sandals of straw	Pair	700
Mattresses, bolsters, etc., with covers of any tissue	Kilog.	900
Cordages of any kind:—		
In pieces or cut	"	220
Made up	"	250
Cords and plaits:—		
Thick	"	2,400
For ornamenting hats, plain or with glass beads	"	8,000
Cloaks of straw	Each	1,000
Brushes of straw or vegetable fibre:—		
For clothes, hats, or hair	Doz.	4,000
For animals, with or without handles	"	1,000
Other	"	1,200
Hand brushes	"	5,200
Mats:—		
Of Angola straw	Kilog.	100
Indian, for beds, etc.	"	1,600
Do. for covering floors	"	460
Artificial flowers, single or in wreaths, and other ornaments	Gram	40
Nets of any kind, for hammocks, fishing, or covering animals	Kilog.	2,000
Sacks of gunny (Indian fibre), or any other material or tissue	"	400
Blinds for window	Each	3,000
Brooms, with or without handles	Dozen	4,000
All articles, not otherwise distinguished	48 per cent. *ad val.*	

NOTE.—Tissues of straw and jute, undistinguished, will pay the same duties as those of cloth, according to quality.

XV.—COTTON.

In the grain, not shelled	Kilog.	100
Raw	"	240
In the mass, carded or in sheets, gummed	"	500
Yarn.—		
Single for weaving or wrapping:		
Raw or white	"	160
Dyed	"	200
Twisted, or wicks for lamps	"	200
Twisted or thread of any kind, in bobbins, clews, or skeins for sewing crocheting	"	1,000
Linings, knittings, etc., for hats	"	500
Loops, tassels, edgings, etc.	"	4,000
Counterpanes	"	1,000
Flannels and plushes	"	1,000
Barège, tarlatan, grenadine, etc.:—		
Weighing 4 kilos. or less for each 100 metres sq	"	8,000
Weighing more than 4 kilos.	"	4,000
Head-dress hoods and flat caps:—		
Knitted or netted	"	5,000
Not otherwise specified	48 p c *ad val*	
Velvet, velvetine and bombazine	Kilog.	2,500
Bonnets and caps	Each	500
Buttons	Kilog.	1,500
Ticking, striped, twilled imitating sail-cloth, beaver, rep and similar tissues	"	1,000
Covers for parasols, piano coverings, and other articles	"	1,800
Muslin and cambric:—		
Coarse, plain or striped, white or colored for lining	"	1,300
Hand or machine embroidered:—		
Weighing 4 kilos. or less per 100 metres sq	"	12,000
Weighing more than 4 kilos.	"	6,500
In patterns, for garments hats, etc.	"	15,000

ARTICLES, ETC.		RATES OF DUTY
Of any other kind, plain, worked, damasked or machine-embroidered, striped or spotted, white, dyed or printed:—		
Weighing 4 kilos. or less per 100 metres	Kilog.	8,000
Weighing more than 4 kilos	"	4,000
In cuttings for garments, hats, etc	"	16,000
Shawls, mantles, handkerchiefs, traveling rugs and *palas*:—		
Common, coarse, plain, twilled, worked or damasked, white, dyed or col'd, of cotton, cloth, batiste, satinette, muslin, etc.	Kilog.	2,000
Of lace	48 p c *ad val.*	
NOTE.—Shawls, etc., which are trimmed with lace more than 3 centimetres long will pay a surtax of 30 per cent.		
Hats:—		
Plain	Each	700
Ornamented	"	1,200
NOTE.—The duties on the hats include those on the cardboard and wooden boxes in which they are imported.		
Girths	Each	500
Coverlets quilted or trimmed with cotton or any other material	Kilog.	1,000
Bed coverings and blankets, of cotton, or of cotton mixed with wool:—		
White, colored or striped, with or without plush	Kilog.	500
Worked or damasked, imitation fustian, etc., white or colored	Kilog.	1,200
Rosettes for parasols	"	1,200
Cords and braids of any kind:—		
Imitating straw and used for ornamenting hats, plain or with glass ornaments	"	8,000
Of any other quality, including those known as *mignardise*	"	1,400
Laces for shoes.		
(These pay duty according to material of which composed.)		
Coxinillos (mantles)	"	1,600
Damask	"	2,500
Corsets	Each	2,000
Tulle:—		
Of lace or net-work:		
Plain, weighing 4 kilos. or less, for each 100 meters square	"	10,000
Do. weighing more than 4 kilos., etc	"	4,000
Worked or embroidered	"	10,000
Gummed, for hat linings	"	2,500
Not otherwise distinguished	"	4,000
Linings, sewn bands and sides for hats:—		
Plain	"	1,600
Gummed or oiled	"	1,000
Fustians, muslins, and satinetts:—		
Plain	"	2,500
Embroidered	"	8,000
Galloons, *grecques*, fringes, ribbons and all kinds of trimming	"	4,000
Nankeen:—		
Red and yellow	"	2,000
Not otherwise mentioned (pay duty as ginghams)		—
Cravats, plain or embroidered	Dozen	1,000
Holland, raw, bleached or colored	Kilog.	1,000
Counterpanes, pillow-cases, towels and serviettes:—		
Embroidered with lacework	48 p c *ad val.*	
Plain (duties according to the tissues of which composed)		—
Sail cloth	Kilog.	500
Gloves:—		
Thick, for children	Dozen pair	1,200
Of any other quality	"	3,000
Hose	Kilog	500
Horse rugs:—		
Of thick cloth (*jerga*) pay duty as *jergas*		—
Of any other tissue	Each	800
Mantlets, chemisettes and other wearing apparel, of lace or other tissue	48 p c *ad val.*	
Stockings:—		
Of Scotch thread:		
Short, up to 20 centimetres long in the foot	Dozen pair	2,000
Do. more than 20 centimetres long	"	4,000

ARTICLES, ETC.	RATES OF DUTY	
		Reis
Stockings:—		
Long, up to 20 centimetres long in the foot	Dozen pair	4,000
Do. more than 20 centimetres long	"	6,000
Not otherwise described:		
Short, up to 20 centimetres long in the foot	"	600
Do. more than 20 centimetres long	"	1,100
Long, up to 20 centimetres long in the foot	"	1,100
Do. more than 20 centimetres long	"	2,200
Ticks (kind of cotton cloth):—		
White	Kilog.	1,000
Thick, glossy, dyed, or printed, for linings	"	1,000
Not otherwise enumerated	"	2,000
Marins, madapolams, Brittany and Irish cloth:—		
White	"	1,000
Dyed or stamped:		
Dressed as cambric imitating muslin, known as *batiste*	"	2,500
Not otherwise mentioned	"	2,600
Oil cloth	"	900
Fine calico:—		
Common, white, dyed or colored, for lining, varnished, transparent, for plans and charts	"	1,000
Not otherwise distinguished:		
Plain white	"	1,600
Plain, dyed or stamped	"	2,000
Worked, damasked, striped or squared	"	2,600
Cotton tissues:—		
Unbleached, plain or twilled	"	600
Bleached or dyed, plain or twilled	"	1,600
Worked or damasked, for towels	"	1,600
Plushed, for towels and counterpanes	"	1,600
Striped, for travelling rugs	"	1,600
Table cloths:—		
Embroidered	45 p c *ad val.*	
Not otherwise mentioned	Kilog.	2,000
Reuens, white or dyed	"	1,000
Netting of every description	"	2,000
Laces of cotton, or of cotton mixed with wool or linen:—		
In cuttings for garments, veils and other articles	45 p c *ad val.*	
Not otherwise distinguished	Kilog.	10,000
Ginghams:—		
Having up to 12 threads in a square of 5 millimetres	"	1,600
Having more than 12 threads	"	2,000
Worked, damasked, striped or in squares	"	2,600
Wearing apparel, made up:—		
Shirts:		
Knitted	Dozen	5,000
Of any other kind, plain or with plaits	"	7,000
Do. do. with front of linen	"	13,600
Pants:—		
Knitted, including those for bathing	"	3,500
Of any other kind	"	6,800
Collars for shirts	"	1,100
Fronts for shirts, plain or with plaits	"	3,200
Cuffs for shirts	Dozen pair	1,600
Not otherwise mentioned:		
Knitted	Kilog.	3,500
Lace	45 p c *ad val.*	
Of any other tissue, plain or lined (pay duty according to tissue of which composed)	—	
Embroidered or ornamented	45 p c *ad val.*	
NOTE.—Cuffs and collars which are imported with shirts without cuffs and collars will pay duty separately.		
Bags:—		
Carpet or travelling	Each	1,500
Not otherwise mentioned	Kilog.	400
Small shoes or half-boots, without sole, for children, plain and trimmed or embroidered	Pair	150
Suspenders, bands and garters, plain or embroidered	Kilog.	4,200

ARTICLES, ETC.		RATES OF DUTY Reis
Coarse tapestry canvas	Kilog.	1,600
Knitted wares	"	2,500
Fancy wares not otherwise mentioned:—		
Weighing 10 kilograms or less in the square of 100 metres	Kilog.	5,000
Weighing more than 10 kilos	"	3,000
Frills and insertions:—		
Loom, hand or machine embroidered:		
With thread, imitating lace	"	20,000
Batiste or cambric	"	10,000
Fustian or muslin	"	5,000
Printed, or simply with folds or gatherings of the same tissue:		
Of batiste, tulle, or cambric, with or without lace, known as *plisés*	Kilog.	10,000
Of morin, fustian, or muslin, known as *plisés*	"	3,000
Wicks for lamps, plain or tapers	"	800
Window-blinds, with or without rollers	Each	2,400
Rags, selvage and cuttings	Kilog.	20
Veils:—		
Embroidered	48 p c	*ad val.*
Not otherwise mentioned (pay duty according to material of which composed)		—
Gauzes, worked with wire, vidrilhos (tissue with glass spangles) and other similar tissues, interwoven with imitation gold or silver	Kilog.	8,500
Horse rugs, with or without mixture of wool or linen	"	850

XVI.—WOOL.

Raw, carded, dyed, or prepared	Kilog.	110
In powder	"	180
Yarn:—		
For weaving or warping, of wool or of wool and cotton:		
Raw or white	Kilog.	240
Dyed	"	280
With mixture of silk	"	350
For small wares	"	1,500
Soft, for embroidering	"	3,000
Felt:—		
For pianos etc	"	3,400
For caulking ships, etc	"	1,000
Of any other kind, plain or printed	"	1,000
Gimps, tufts, tassels, cord, and similar articles of wool, or of wool mixed with cotton or linen	"	4,000
Embroidered coverings and carpets:—		
Striped, thick, for staircases, of wool, or of wool mixed with other materials	"	1,000
Velveted:		
With long pile, thick, with foundation of hemp or tow	"	1,000
Short pile, thin, with thick foundation of tissue of cloth, cotton, or hemp	"	2,000
Do. do. without the above mentioned tissue	"	2,500
Not otherwise mentioned:		
With reverse side of a thick tissue of cotton, linen or hemp	"	1,300
Without the above tissues	"	2,300
Alpacas, muslin, lille cloth, durants, damask, merino, cashmere, and similar tissues not otherwise classified, plain or braided, worked or damasked	"	3,600
Baize	"	960
Light baize and flannel:—		
Plain	"	2,200
Worked	"	3,600
Military scarfs	"	3,600
Flags	"	3,000
Barege, grenadine, gauze, and other open or transparent fancy tissues, not elsewhere specified:—		
Weighing 10 kilograms or less, per 100 square metres	"	9,600
Weighing more than 10 kilograms	"	5,000
Hoods, caps, and other head-dress:—		
Knitted or netted, with or without mixture of silk	"	5,000

ARTICLES, ETC.		RATES OF DUTY Reis
Hoods, caps, and other head-dress:—		
Knitted or netted, common, for sailors and workmen	Kilog.	2,000
Not otherwise mentioned	48 p c	*ad val*
Caps:—		
With galloons of fine gold	Each	2,400
Not specified	"	800
Buttons	Kilog.	1,800
Head-stalls:—		
Of wool or of wool and cotton	Each	1,800
With ornament of common metal	"	1,600
Halters	"	800
NOTE.—Harness without bridles and bridles without harness only pay half the duties.		
Ribbons with or without mixture of cotton or linen	Kilog.	4,000
Coverings for parasols and for pianos and other articles	"	1,800
Shawls, mantels and handkerchiefs:—		
Plain or twilled, worked or damasked, white, dyed or colored	"	5,000
Of lace or embroidered with lace, or with fringe of silk	48 p c	*ad val.*
Hats:—		
Of felt:		
Plain	Each	1,400
Trimmed	"	2,400
Of any other tissue:		
Plain	"	1,400
Opera (Gibus)	"	2,100
Trimmed	"	2,400
NOTE.—The duties upon the hats include those of the common wooden or cardboard boxes in which those articles are imported. Felt caps (low hats), for the manufacture of woollen hats, will pay the same duties as hats of felt, plain, with a reduction of 10 per cent. This reduction, however, will be 50 p. c. if the caps are not worked.		
Girths	Each	500
Coverlets of wool, or of wool and cotton:—		
Dark, common	Kilog.	540
Of any other kind, white or colored	"	1,800
Cords, plaits, twists, trimmings, galloons and fringes of wool, or mixed with cotton or linen, with or without glass ornaments	"	4,000
Boot laces (pay duty according to the tissue of which composed)		
Oxindilhos (cloaks) of wool, or of wool and cotton	"	1,000
Woollen lastings	"	2,200
Flesh brushes, etc	Dozen	4,000
Filáe (kind of woollen stuff)	Kilog.	2,500
Cravats and bands, plain or embroidered, of all kinds and shapes	"	5,000
Gloves, plain or embroidered	Doz. pairs	3,000
Horse-rugs:—		
Of felt	Each	1,000
Of any tissue not otherwise mentioned	"	1,500
Manlets, chemisetter, and other wearing apparel of lace or any other tissue	48 p c	*ad val.*
Stockings of wool or of wool and cotton:—		
Short:		
Up to 20 centimetres long in the foot	Doz. pairs	1,100
More than 20 centimeteres long	"	2,200
Long:		
Up to 20 centimeters long in the foot	"	2,200
More than 20 centimeters long	"	4,000
Knitted wares, not distinguished, plain, or without mixture trimming, or lining of silk	Kilog.	5,000
Oilcloths	"	900
Cassimir and cassinet:—		
Single, with or without mixture of silk	"	3,600
Double do. do.	"	1,600
NOTE.—The first division includes those tissues weighing per square metre 450 grams or less, if of wool or of wool mixed with any other material, and 400 grams or less when the wool and cotton are in equal parts. The second division includes those exceeding the weights specified above.		

ARTICLES, ETC.	RATES OF DUTY	Reis
Table-cloths:—		
Embroidered	40 p c ad val.	
Not otherwise mentioned	Kilog.	2,000
Lace, of wool or of wool with mixture of cotton or linen:—		
In cuttings, for garments, veils, etc.	40 p c ad val.	
Not otherwise mentioned, plain or with glass ornaments	Kilog.	14,000
Wearing apparel, made up:—		
Shirts:		
Knitted, thick, for sailors or workmen	Dozen	3,000
Do. of any other kind	"	9,600
Of light baize or flannel	"	9,600
Pants, knitted or of flannel	"	9,600
Jackets, petticoats and jerseys, thick, of knitted or net-work	"	8,500
Mourning dress bodies, plain or braided, folded or with bugles	Kilog.	5,000
Not otherwise mentioned:		
Of baize or thick cloth, for military and similar use	"	3,000
Of felt	"	5,000
Of double cloth or casimir	"	7,000
Of single cloth or casimir, of alpaca, merino or any other tissue	Kilog.	10,000
Of lace	40 p c ad val.	
Embroidered or ornamented	"	
Traveling bags	Each	1,500
Small shoes and buskins, without soles, for children, plain and embroidered or ornamented	Pair	250
Barcanetta and *serguilha* (thick woolen cloths)	Kilog.	1,800
Long strips of cloth and insertions, plain or with glass ornamentation:		
Embroidered with cotton, wool or linen	Kilog.	10,000
Embroidered with silk	"	16,000
Blinds, for doors and windows, with or without rollers	Each	2,400
Rags, list and cuttings	Kilog.	20
Bergas (thick cloth) of wool, or of wool and cotton	"	150

NOTE.—Tissues and articles of *ramie* or *China grass* will pay the duties fixed for tissues of wool, according to quality.

XVII—FLAX AND JUTE.

Raw, dressed, combed, or prepared for spinning, dyed or colored	Kilog.	10
Yarn:—Jute:		
Single, for weaving or warping, raw	Kilog.	10
Do. dyed	"	20
Not otherwise distinguished (same duties as hemp yarn)		
Hemp:—		
Single, for weaving or warping, raw or white	Kilog.	200
Do. dyed	"	250
Twisted, or yarn of any kind, in bobbins, clews, or hanks, for sewing, crocheting, knitting, etc.	Kilog.	1,000
For shoemakers	"	220
Tow	"	10
Lint, for surgical uses, plain or in sheets	"	350
Loops, tufts, tassels, edgings, etc.	"	4,000
Embroidered coverlets and carpets	"	1,000
Coarse cloth of hemp and other tissues, not distinguished, tow yarn for bags and packing:—		
Plain, with up to 6 threads in the square of 5 millimeters	Kilog.	200
Do. more than 6 threads	"	450
Twilled	"	350
Barège and similar tissues, not close-woven	"	4,000
Caps	Each	500
Buttons	Kilog.	1,500
Canvas, Brittany cloth, muslin, cambric, Irish cloth, and other tissues not distinguished:—		
Plain:		
Up to 6 threads in the square of 5 millimetres	Kilog.	400
More than 6 and up to 9 threads	"	850
More than 9 and up to 12 threads	"	1,400
More than 12 and up to 15 threads	"	2,500
More than 15 and up to 18 threads	"	3,200
More than 18 and up to 21 threads	"	4,200
More than 21 and up to 24 threads	"	5,200

ARTICLES, ETC.		RATES OF DUTY Reis
Canvas, Brittany cloth, muslin, cambric, Irish cloth, etc.:		
More than 24 threads	Kilog.	6,500
Twilled and imitating sailcloth	"	1,500
Worked or damasked:		
Suitable for wearing apparel	"	2,500
Suitable for towels, etc	"	2,100
Rough, for towels and counterpanes	"	1,500
Gummed or waxed, for binding books	Kilog.	500
Halters:—Of linen-cloth or of linen-cloth and cotton, plain	Each	1,000
Do. do. with ornaments of common metal	"	1,200
Inferior	"	560
Cordage and braid, with or without mixture of cotton	Kilog.	1,400
Covers for umbrellas, for pianos, etc	"	1,800
Shawls, mantles and handkerchiefs:—		
Embroidered or with lace	48 p c *ad val.*	
Plain:		
Up to 12 threads in the square of 5 millimetres	Kilog.	2,800
From 12 up to 15 threads	"	3,400
More than 15 and up to 18 threads	"	4,200
More than 18 and up to 21 threads	"	5,800
More than 21 and up to 24 threads	"	7,600
More than 24 threads	"	9,600
Hats:—Plain	Each	700
Trimmed	"	1,200
NOTE. The duties on hats include those of the cardboard or common wooden boxes in which they are imported.		
Bath slippers:		
With sole of coffila	Pair	280
With sole of metal or wood	"	660
Girths	Each	560
Cordage:—		
Packthread, marline, sail-twine, etc	Kilog.	420
Ropes, cables, rigging, etc., pitched or not:		
In pieces or cuttings	"	220
In articles made up	"	250
NOTE.—Cordage is only considered as packthread, marline, sail-twine, etc., when it is less than 2 millimetres in diameter.		
Laces for shoes (pay duty according to tissue of which composed)		—
Quantilhos (mantles), of linen, or of linen and cotton	Kilog.	1,080
Corsets	Each	3,000
Galloons, fringes, and trimmings	Kilog.	4,000
Cravats, plain or embroidered	Dozen	1,500
Bed coverings, counterpanes, pillow-cases, towels and serviettes:—		
Embroidered, or with lace or net work	48 p c *ad val.*	
Plain (pay duty according to material of which made)		—
Gaiters and suspenders	Kilog.	4,200
Sailcloth	"	500
Gloves	Doz. pr.	3,600
Hempen hose	Kilog.	500
Horse rugs:—		
Of *xerga* tissue (pay duties as *xerga*)		—
Of any other description of cloth	Each	1,200
Mantlets, chemisettes, and other wearing apparel, of lace or of other tissues	48 p c *ad val.*	
Stockings:		
Of worsted:		
Short, up to 20 centimetres long in the foot	Doz. pair	2,000
Do. more than 20 centimetres long	"	4,000
Long, up to 20 centimetres long in the foot	"	4,000
Do. more than 20 centimetres long	"	8,000
Not otherwise distinguished:		
Short, up to 20 centimetres long in the foot	"	600
Do. more than 20 centimetres long	"	1,100
Long, up to 20 centimetres long in the foot	"	1,100
Do. more than 20 centimetres long	"	2,200
Oil cloth:—		
For furnishing	Kilog.	350
Of any other description	"	900
Netting of any quality	"	2,000

ARTICLES, ETC.		RATES OF DUTY Reis
Laced linen thread, or of thread mixed with cotton or wool:—		
In cuttings for wearing apparel etc	48 p c	*ad val.*
Not otherwise distinguished	Kilog	22,000
Wearing apparel made up:—		
Shirts:		
Of *antagem* or *cregula* (thick cloths)	Dozen	6,500
Of any quality plain or with plaits	"	26,000
Pants	"	12,000
Linen colors	"	2,100
Fronts, plain or with folds	"	6,400
Cuffs	Dozen pair	3,100
Not otherwise mentioned:		
Of lace	48 p c	*ad val.*
Of any other material	Kilog.	4,500
Embroidered or trimmed	48 p c	*ad val.*
NOTE.—Collars and cuffs imported with shirts without collars and without cuffs pay duty separately.		
Bags:—		
Travelling	Each	1,500
Common, of hempen tissues, etc	Kilog.	350
Bands and insertions, printed, or simply with plaits, plain or damasked, hand or machine embroidered	Kilog.	10,000
Blinds for doors and windows, with or without rollers	Each	2,400
Rags, list and cuttings	Kilog.	20
Xergas of hemp, or of hemp and cotton	"	350

XVIII.—SILK

In cocoons	"	400
Raw	"	1,300
Yarn:—Raw, white or dyed for weaving	"	2,000
Floss, for embroidering and twisting (silk twist):		
In hanks	"	6,500
In bobbins	"	2,000
Loops, tufts, tassels, edgings, etc:—		
Of silk, or other material covered with silk	"	15,000
Scarfs of twisted silk:—		
Plain or with silk tassels	"	24,000
With tassels of gold or silver	"	30,000
Barège, tulle, gauze, crape, plain, worked, with flowers and other ornaments	Kilog.	28,000
Berettas and hoods knitted, of silk or any material covered with silk	"	24,000
Hair-nets, etc., of silk twist, or any material covered with silk	"	24,000
Brocades, materials woven with gold or silver wire, and tissues for making ecclesiastical vestments and church ornaments:—		
Worked or embroidered with foundation of gold or silver	Kilog.	28,000
Do., do., of gold or silver, semi-fine or imitation	"	14,000
Worked, of gold or silver, with or without shade	"	18,000
Do., do., of gold or silver, semi-fine or imitation, with or without shade	Kilog.	9,000
Caps, plain or trimmed	Each	2,500
Buttons, of silk, pure or mixed with other materials, or of any material covered with silk	Kilog.	3,200
Covers for pianos and other articles	"	24,000
Shawls, mantles, hankerchiefs and veils:—		
Of lace, tulle, gauze, and crape, with or without mixture of other materials, plain, worked or embroidered	Kilog.	28,000
Of twisted silk	"	24,000
Of tissues not otherwise mentioned, plain twilled or worked	"	18,000
Do., do., embroidered	60 p c	*ad. val.*
Hats:—With a pile, finished:		
Plain	Each	4,00
With tassels, edging, and other ornaments, black or of gold or silver of any kind, with or without feathers	Each	12,000
Do., on cardboard:		
Plain	"	3,000
With edging, black or of gold or silver, of any quality, and with or without feathers	Each	6,000
Round:—Plain or with springs	"	2,500
Trimmed	60 p c	*ad val.*

ARTICLES, ETC.	RATES OF DUTY
Hats:—Of velvet, of silk, or of silk and cotton, or of any other tissue of silk or of silk and any material:	
Plain....Each	Reis 2,500
Trimmed....60 p c *ad val.*	
NOTE.—The duties upon the hats include those of the card-board or common wooden boxes in which they are imported.	
Coverlets and blankets, common, of silk-waste for beds....Kilog.	5,000
Covers and rosettes for parasols.... "	24,000
Cords, plaits, laces and ribbons, of silk or of silk mixed with other materials....Kilog.	15,000
Boot laces (pay duty according to material of which composed)....	—
Corsets....Each	7,000
Ribbons, plain, worked, or shaded, of velvet or any other description of silk or of silk mixed with any other material....Kilog.	15,000
Linings and bands, quilted or not, for hats, of silk or of silk mixed with any other material....Kilog.	6,000
Tassels, with or without brass wire.... "	24,00
Galloons and fringes, of silk or of silk mixed with any other material....Kilog.	15,000
Gauze, of silk, gummed.... "	14,000
Neckerchiefs, of silk or of silk mixed with other materials, of any shape or make, for men or women....Kilog.	15,000
Ties, of silk, or of silk mixed with any other material, lined or not, with or without buckles....Kilog.	15,000
Garters and suspenders, plain or embroidered, of silk or of silk mixed of any other material....Kilog.	15.000
Gloves, of silk twisted or knitted silk, purely of silk or of silk mixed of any other material....Kilog.	24,000
Stockings, of silk and of silk mixed with any other material....Kilog.	24,000
Plush:—	
Black of silk and cotton, for hats.... "	5,000
Not otherwise mentioned: Of silk.... "	24,000
Of silk and cotton.... "	13,000
Lace:	
Of silk, or of silk mixed with any other material.... "	30,000
In cuttings for wearing apparel....60 p c *ad val.*	
Ready-made clothing, mantlets, chemisettes, etc.:—	
Of silk waste of any kind....Kilog.	15,000
Of lace, or embroidered or trimmed....60 p c *ad val.*	
Not otherwise mentioned (pay duty according to material of which composed)....	—
Slippers or half-boots, without soles, for children, plain, trimmed or embroidered....Pair	500
Tissues not otherwise mentioned:—	
Of silk waste: Unbleached....Kilog.	9,000
White, dyed, printed, worked, or with flowers imitating embroidery....Kilog.	15,000
Of net of silk, or of silk mixed with any other material, with or without spangles....Kilog.	18,000
Not otherwise mentioned, plain, worked, damasked or with flowers and other velveted ornaments imitating embroidery....Kilog.	24,000
Bands and insertions of silk or of silk mixed with any other material, plain or embroidered, with or without lace, including tufts or plaits....Kilog.	24,000
Blinds for windows, with or without rollers....Each	5,000
Velvets, plain, worked, or with flowers or other ornaments, imitating embroidery:—	
Entirely of silk....Kilog.	24,000
Of silk and cotton.... "	13,000
NOTE.—Those articles classified, which have trimmings or ornaments as spangles, will have an abatement of 50 per cent. on the respective duties when the spangles do not comprise one-third of the total weight of the respective merchandise.	

XIX.—PAPER AND MANUFACTURERS OF

Albums for drawings and photographs:—	
With cover of wood or cardboard, bound in paper, cloth, leather or skin, plain or with ornaments of any kind, except those of gold or silver....Kilog.	1,600

ARTICLES, ETC.		RATES OF DUTY Reis
Albums for drawings and photographs:—		
With cover of ivory, mother-of-pearl, or tortoise-shell, of sandal-wood or Chinese varnish, of silk, velvet, etc., except those of gold and silver	45 p c	*ad val.*
NOTE.—Those albums which contain prints, chromos or photographs, will pay 30 per cent. additional duty to those above.		
Boxes of cardboard or pasteboard:—		
Snuff, etc.	Kilog.	3,000
Large, for hats, trimmings for hats, etc.	"	320
Small, for sealing wax, medicines, etc.	"	800
Cardboard, white or colored:—		
In sheets	"	160
Cut, for *cartes de visite*, etc., plain or with gilt edges, framed, with gilt borders, painted or embossed	Kilog.	500
Playing cards:—In packs	Kilog.	1,600
Of cardboard for finishing or for cutting up, in sheets of paper for cutting up, colored or simply printed		1,200
Hats and caps:—		
Plain, imitating straw, or with oiled cloth for soldiers	Each	700
Trimmed	"	1,200
Prints, drawings, and photographs:—		
For use in studying anatomy, botany, and other sciences, also instruments and machines, or models for the arts and trade, bound, stitched in paper, or not stitched	Kilog.	160
For placards, advertisements, children's toys, etc.	"	1,600
Of gelatine or oiled paper, etc.	"	500
Not otherwise distinguished	"	3,200
NOTE.—Prints which accompany illustrated journals, and which form part of them, will pay the duties to which the journals are subjected.		
Blank books:—		
Of paper, plain, ruled or lined, for accounts, with or without printing	Kilog.	2,000
For copies of letters, notes and memoirs, with or without print	"	1,200
Books, printed or for reading, journals, periodicals and reviews:—		
Stitched or bound with cover of cardboard, lined with paper, cloth, leather or skin, plain or with ornaments of any kind, except those of gold or silver	Kilog.	160
Do. do. with cover of ivory, mother-of-pearl or tortoise shell, etc., etc.	Kilog.	3,200
Do. do. with cover of silk, velvet, pasteboard, or wood	"	1,600
Do. do. with ornaments of gold or silver	15 p c	*ad val.*
Manuscripts of any description, bound, stitched, or in separate sheets		Free
Maps or geographical, hydrographic, topographic etc., charts, bound, stitched in paper, or in separate sheets	Kilog.	160
Music, bound, stitched, or in separate sheets	"	3,200
Printed or lithographed works, invoices, notes, bills of lading, envelopes, account sales, circulars, prospectuses, traveling tickets, visiting cards, receipts, bound or not, posters, tickets, calendars, advertisements, placards, engravings, gummed or not, etc.:—		
Of one color	Kilog.	1,600
Of two or more colors	"	2,800
Cap brims of cardboard, plain, or lined with leather or waxed cloth, with or without border of metal	Kilog.	1,600
Paper:—		
In pasteboard, of any quality, for the manufacture of paper	"	10
For writing or drawing, of any quality, white or colored:		
Plain, ruled or lined	"	220
With gilt edges, marked, bordered, or with framing, painting, engravings, embossing, or monograms	Kilog.	480
For printing or topography	"	80
Painted, engraved, dyed, or colored, plain, worked, or morocco'ed, for binding and similar uses	Kilog.	240
Gilt or silvered, real or imitation	"	800
Prepared for photographic use	"	1,800
Blotting and filtering	"	160
Common, for packing, without printing	"	80
Do. printed	"	240
White or dyed, satined or not, in pieces or in rolls	"	80

ARTICLES, ETC.		RATES OF DUTY Reis
Paper:—		
Covered with cloth, for any use	Kilog.	200
Of silk, white or colored, for copying letters, and without gum	"	320
Oiled, carbonized, Oriental, rice, Chinese, vegetable, etc	"	320
For cigarettes, etc.:		
In sheets	"	240
In small books or in small cases	"	960
For papering rooms:		
Painted, printed, of any description	"	1,800
Do. do. gilt, silvered, or velveted	"	2,000
Sheets of cardboard, covered with cotton or cloth, gummed, for hats	Kilog.	480
Collars for shirts	Dozen	400
Cuffs do	Dozen pair	800
Fronts do	Dozen	600
Trimmings for hats, with or without tissue of silk	Kilog.	400
Bags, without inscription	"	160
" with inscription	"	480
Envelopes, for letters	"	480
Bands or galloons:		
For telegraphic use	"	160
Of any other quality	"	2,000
Chinese lanterns, etc	"	1,000
Cut or prepared in any other manner for manufacturers, with or without inscription, etc	Kilog.	2,000
Cardboard:—		
Varnished for brims of helmets, etc	"	320
Not otherwise varnished	"	80
Portfolios:—		
Plain or with cloth, leather or waxed cloth	"	800
Do. velvet or silk	"	3,500
All articles of paper, cardboard, or pasteboard not otherwise mentioned	48 p c *ad val.*	

XX.—STONES, EARTHS AND OTHER MINERALS.

Alabaster, marble porphyry, jasper and similar stones:—		
In the rough: In pieces rough hewn or sawn	Cub. metre	1,600
In blocks or bricks, simply sawn	Sq. "	800
In powder	Kilog.	80
Polished or manufactured:		
Bricks	Sq. metre	1,600
Rounded, up to 80 centimetres in diameter	Each	2,600
Do. more than 80 centimetres and up to 90	"	4,200
Do. more than 90 centimetres and up to 100	"	6,100
Do. more than 100 and up to 110	"	8,000
Do. more than 110 and up to 120	"	10,500
Do. more than 120 centimetres	"	13,000
Quadrangular and oval, up to 30 centimetres long	"	800
Do. more than 50 centimetres and up to 60 centimetres	Each	1,600
Do. more than 60 and up to 100 centimetres	"	2,600
Do. more than 100 and up to 140 centimetres	"	4,200
Do. more than 140 and up to 180 centimetres	"	6,500
Do. more than 180 centimeters	"	10,000
For lavatories, vestibules, etc	Sq. metre	2,600
Articles not otherwise mentioned	48 p c *ad val.*	
Amianthus or asbestos	Kilog.	800
Argil and moulding sand	"	10
Clay:—Unprepared		Free
In articles made up:		
Articles not otherwise mentioned, of any form or shape, for any use, of common clay	Kilog.	100
Do. of fine clay	"	250
Pipes	"	320
Drain or chimney pipes	"	80
Figures, busts, statues, vases, etc., for tables	"	1,200
Do. for gardens, etc	"	200
Models, and similar articles for the arts	"	80
Pitchers, cups, vases and water pots	"	240

ARTICLES, ETC.	RATES OF DUTY	
Clay:—		Reis
Tiles of common clay	Hundred	4,000
Do. of clay glazed	"	19,200
Bricks, common	Thousand	12,500
Do. flooring	"	15,500
Do. furnace or fire bricks	"	29,090
Do. for cleaning knives (Bath)	Kilog.	30
Bitumens:—Solid:		
Amber, jet, black or yellow succin	Kilog.	800
Asphalt, of any description	"	60
Liquid: Rectified or colorless	"	800
Colored or common (petroleum)	"	80
Coal pitch, in paste or solid	"	15
Ochre:—Common	"	50
For gilding	"	240
Lime, in lumps or in powder	"	30
Coal:—Electric, or prepared for the electric light	"	350
Mineral or pit coal and coke		Free
Roman and Portland cement, etc.:—		
Unprepared or in powder	Kilog.	10
In tiles, plain or colored, called mosaics	"	40
Emery:—For cleaning knives:		
In stone or bricks	"	160
In powder	"	450
Not otherwise mentioned	"	120
Ice	"	5
Plaster:—In stone or sulphate of lime	"	15
In powder or calcined	"	30
Made up: Pipes	"	320
Models and similar articles for the arts	"	80
Not otherwise mentioned	"	1,000
Chalk:—In stone	"	15
In powder or prepared	"	30
Prepared for white lead for billiard cues, etc	"	450
Slates:—Unprepared or in tablets	"	30
In tiles	Sq. metre	800
Cut or prepared in pencils or in sheets for writing	"	100
Flint stones:—Unprepared	"	15
Cut or prepared, for fire-arms, etc	"	160
Pumice stone, etc	"	60
Blood stone, African and Tripoli stone	"	600
Granite or freestone:—Not prepared or rough hewn	15 p c *ad val.*	
Prepared:—Hearth stone	Each	320
Mill stone	"	400
Grind stone	Kilog.	20
Whet stone	"	160
Filtering stone	"	50
Building, paving and similar stones	15 p c *ad val.*	
Not otherwise mentioned	15 p c *ad val.*	
Lithographic stones:—Up to 30 centimetres long	Each	500
More than 30 and up to 50 centimetres	"	1,200
More than 50 and up to 70 centimetres	"	2,900
More than 70 and up to 90 centimetres	"	4,000
More than 90 and up to 120 centimetres	"	5,800
More than 120 centimetres	"	8,000
NOTE.—Lithographic stones which are imported after being partially or entirely prepared, will pay a surtax of 50 per cent.		
Precious stones in the raw state or cut:—Diamonds	Gram.	12,000
Emeralds, sapphires, rubies and opals	"	4,000
Topazes, amethysts, coral, onyx, mosaic, and stones not otherwise mentioned	"	100
Plombagine, graphite (natural carburet of iron), in stone or in powder	Kilog.	100
Talc, unprepared or in powder	"	30
Earths:—Kaolin or porcelain earth	"	30
Phosphates, sulphates, and carbonates, natural, used solely as manure	"	15
Not otherwise mentioned	"	640
All minerals not otherwise mentioned	48 p c *ad val.*	

ARTICLES, ETC.				RATES OF DUTY	
XXI.—FAIENCE, PORCELAIN AND GLASSWARE.					
1.—FAIENCE AND PORCELAIN.					Reis
Needle cases, bracelets, toys, large pins, ornaments, etc.				Kilog.	4,000
Sets and pieces of any shape or make, not otherwise mentioned:					
In faïence or porcelain,		No. 1		Kilog.	80
Do.	do.	No. 2		"	140
Do.	do.	No. 3		"	260
Do.	do.	No. 4		"	350
Do.	do.	No. 5		"	540
Do.	do.	No. 6		"	1,000
NOTE.—For descriptions of faïence or porcelain, Nos. 1, 2, 3, etc., see note at end of Class XXI.					
Tiles				"	100
Buttons				"	650
Vases and flower-pots, scent flasks, figures, images, medallions, busts, statues, etc.:—					
For tables, etc.:					
Of faïence and porcelain, Nos. 1, 2 and 3				"	800
Do. Nos. 4, 5 and 6				"	2,200
For gardens, etc.:—					
Of faïence and porcelain, Nos. 1, 2 and 3				"	200
Do. Nos. 4, 5 and 6				"	900
NOTE.—In this category are not included handles, globes, flowers and stands belonging to vases and flower-pots; these articles pay duty separately.					
2.—GLASSWARE.					
Waste and remains of articles or broken or useless wares					Free
In paste:—					
Conical or in tubes, for cutting, paring and polishing				Kilog.	1,200
Cut, pared and polished, or imitation				"	6,000
In plates or sheets:—					
For windows:					
Uncolored, plain				"	70
Colored, worked, or emery polished and fluted				"	200
Thick, for ships, etc				Kilog.	80
Polished without steel:—					
Up to 3 millimetres thick, up to 20 decimetres surface				Sq. Dec.	25
Do. more than 20 and up to 50 decimetres				"	50
Do. more than 50 and up to 100 decimetres				"	80
Do. more than 100 and up to 200 decimetres				"	120
More than 200 decimetres				"	180
More than 3 millimetres thick, up to 20 decimetres surface				"	40
Do. more than 20 and up to 50 decimetres				"	80
Do more than 50 and up to 100 decimetres				"	120
Do more than 100 and up to 200 decimetres				"	180
Do more than 200 decimetres					260
Polished with steel:—					
Up to 3 millimetres thick, up to 20 decimetres surface				"	40
Do. more than 20 and up to 50 decimetres				"	80
Do. more than 50 and up to 100 decimetres				"	120
Do. more than 100 and up to 200 decimetres				"	180
Do. more than 200 decimetres				"	260
More than 3 millimetres thick, up to 20 sq. decimetres surface				"	60
Do. more than 20 and up to 50 decimetres				"	140
Do. more than 50 and up to 100 decimetres				"	210
Do. more than 100 and up to 200 decimetres				"	270
Do. more than 200 decimetres				"	350
Needle-cases, bracelets, large pins, toys, ornaments, etc.				Kilog.	4,000
Buttons				"	650
Beads and spangles:—					
Covered with satin, white or colored, imitating pearl, etc., hollow or fine, including spangles				Kilog.	3,400
Cut, cast, painted, enamelled, or perfumed, etc., including *arrangoes*				Kilog.	1,000
Not otherwise distinguished				"	4,200
Wreaths and other ornaments for gravestones, with or without ornaments				Kilog.	3,200

ARTICLES, ETC.	RATES OF DUTY
	Reis
Enamel:—	
Fine for jewellers ..... Kilog.	4,000
Common, or cobalt, vitrified, for potters ..... "	1,800
Flasks of scents, vases and flower-pots, busts and figures, and similar fancy articles:—	
Of glass, No. 1 ..... Kilog	1,300
Do. No. 2 ..... "	2,000
NOTE.—In the weight of the vases or figures, having reservoirs of any kind or any material, and adapted to serve as lamps, is included that of the articles, if they cannot be separated.	
If the contrary be the case, these articles will pay duty separately, according to their quality.	
Bottles, demijohns and common flasks:—	
Of common glass, dark, called black, etc.:	
Without stopper and neck, emery polished ..... Kilog.	50
With stopper and neck, emery polished ..... "	80
Do. do. white, or of a greenish or bluish color:	
Without stopper and neck, emery polished ..... "	120
With stopper and neck, emery polished ..... "	180
With lid of common metal ..... "	240
Bottles or flasks, covered with straw, leather, or thread, with or without cup of tin ..... Kilog.	640
Demijohns, covered with osier or straw ..... "	100
Lustres, candlesticks, and chandeliers ..... "	1,600
NOTE.—The duties on the pendants, cupolas, chains, arms and other parts of lustres, imported separately, or in reserve, are included in the above.	
Tiles of any kind ..... Kilog.	120
Glassware not otherwise mentioned:—	
Articles for table use, such as tumblers, glasses for liqueurs, bottles, fruit dishes, plates, fruit plates, butter dishes, sugar basins, salt-cellars, mustard-pots, cruet-stands, jelly-plates, knife-rests, etc:	
Of glass, No. 1 ..... Kilog,	330
Of glass, No. 2 ..... "	630
Articles intended for other uses, such as boxes or cases for other uses, fruit-vases with flower-stands, liquor compartments, ewers, basin and other necessaries for lavatories, spittoons, sockets for chandeliers, handles, cupolas, globes, glasses for chimney candlesticks, glass reflectors, lamps, night-lamps, inkstands, paper-presses, knobs for windows, etc:	
Of glass, No. 1 ..... Kilog.	520
Of glass, No. 2 ..... "	1,000
NOTE.—(a.) The above duties include those on the fastenings, ferrules, ornaments and small chains of metal imported with the above articles, attached or glued, as well as those on all fittings and ornaments of wood forming part of the above articles.	
Foot lamps of iron, zinc, or any other similar articles of marble or similar stones will enjoy a reduction of 80 per cent. on the respective duties.	
NOTE.—(b.) The following are considered as faience and porcelain:	
No. 1.—White earthenware.	
No. 2.—Earthenware, friezed or with colored border.	
Earthenware, painted or printed, copper-colored, etc.	
No. 3.—Earthenware enamelled.	
Black earthenware of every kind.	
Earthenware of Japanese earth, etc.	
Earthenware of every kind, gilt.	
No. 4.—Porcelain, white.	
No. 5.—Porcelain, white, gilt.	
Porcelain, painted, printed or enamelled.	
No. 6.—Porcelain, painted, printed or enamelled, with gilding, and that called "Biscuit."	
The following are considered as glass:	
No. 1.—Glass, plain and moulded.	
No. 2.—Glass, cut, whole, or in parts, worked, emery polished, and that known as "muslin"	
Glasses, colored, opaque, painted, enamelled, or gilded are liable to surtax of 50 per cent.	

ARTICLES, ETC.	RATES OF DUTY
Are not considered as glass, No. 2, those bottles, fruit-dishes and similar articles, plain, classed under No. 1, which have the knobs of the covers and stoppers slightly cut.	
If an article consists of parts of faïence, porcelain, or glass of different qualities, duty will be levied as if it belonged to the category bearing the highest duty.	

XXXII.—GOLD, SILVER AND PLATINA.

Gold:—	**Reis**
In bars, powder, or in any other raw state, or broken articles (useless)	Free
In sheets, for gilding and dentistry.....Kilog.	6,000
National or foreign coin.....	Free
In medals, archæological, numismatic, and similar collections .....Gram	100
Jewellery:	
With diamonds, rubies, sapphires, pearls, emeralds, or opals.....5 p c *ad val.*	
Of every kind, plain, or of gold wire, or with corals or stones not otherwise mentioned, or with sham stones.....Grams	100
Writing pens, with or without nibs of diamond stone.....Grams	200
Articles not otherwise mentioned..... "	100
Silver:—	
In bars, powder, or any other raw state, or broken articles (useless)	Free
In sheets, for silvering and dentistry.....Kilog.	6,000
National or foreign coin.....	Free
In medals for archæological, numismatic, and similar collections .....Gram	10
Fringes, galloons and any other description of small wares:	
White, or simply of silver.....Kilog.	9,600
Gilded, galvanised or perfumed..... "	13,000
Epaulettes, tassels and similar articles..... "	16,000
Silversmiths' wares:	
Plain, worked, stamped, enamelled, or with imitation stones, plain or gilded, or of wire, as plate for use on tables, in lavatories, etc. .....Gram	10
Do, do, as jewellery, rings, bracelets, ornaments, etc.....Gram	20
Of any other description, mosaics, corals, pearls, fine stones and other ornaments.....5 p c *ad val.*	
Articles not otherwise distinguished.....Gram	10
Platina:—	
In bars, sheets, wire scrap, powder, or in the form of sponges.....Gram	40
Manufactured in any shape..... "	100
NOTE.—In the weights of articles of this category is included that of the accessories and parts of those articles, such as handles, feet, etc., when they are of ivory, mother-of-pearl, or tortoise-shell; it is the same with regard to those which are of glass, faïence, porcelain, wood, horn, etc. when they cannot be separated from the articles, in order to subject them to their respective duties. In this case, however, these articles will enjoy a reduction of 80 per cent.	
Knives, forks and other similar articles which have plates and similar accessories of iron, steel, or any other common metal, will be subject to a reduction of 80 per cent., the articles being in other respects liable for their respective duties.	
The duties upon jewels include those on the small common boxes in which they are imported.	

XXIII.—COPPER AND ITS ALLOYS.

Smelted, cast, in filings, in tiles, bars, wrought, in plates, in rolls, sheets, with or without alloy.....Kilog.	280
Packing needles, etc..... "	3,900
Table services, large and small plates, liquor compartments, cruet stands, spoons and other articles for domestic use, basins, ewers, and other toilet necessaries, card-trays, vases and other similar fancy articles in thin sheets and those known commercially as Christofle, Elkington, electroplate, alfenike, roulz, plated, etc., of copper, silver-plated:	
Plain..... Kilog.	1,600
Silver-plated, entirely or partially..... "	8,000

ARTICLES, ETC.		RATES OF DUTY Reis
Table services, etc.		
Gilded, entirely or partially	Kilog.	4,600
Cradles:—		
Plain or simple	Each	8,000
Worked or ornamented	"	16,000
Jewellery of every description, plain, varnished, gilded, or silver-plated	Kilog.	4,000
NOTE.—This category includes ornaments, rings, bracelets, clock-chains, buttons not otherwise provided for, garters, combs and all other ornamental articles, with or without imitation stones.		
Buttons, white or yellow:—		
With holes for trousers	Kilog.	800
For clothing, uniform or livery:		
Simply polished, plain or varnished, with designs, numbers or letters	Kilog.	1,800
Gilded, silver-plated or perfumed, plain or with numbers, letters, or designs	Kilog.	4,000
Nose bands for animals	Each	400
Padlocks:—		
Plain or common	Kilog.	1,200
Pump, secret, letter, etc	"	3,200
Chairs and stools:—		
Plain or simple	Each	2,900
Worked or ornamented	"	4,800
Rocking and chairs not otherwise mentioned	"	8,000
Bedsteads:—		
Plain:		
Single	Each	12,000
Double	"	20,000
Children's	"	8,500
Worked:		
Single	"	25,000
Double	"	42,000
Children's	"	17,000
NOTE.—Bedsteads measuring up to 1 m. 10 on the inside are considered as single ones.		
Bells:—		
Com., for doors, clocks, animals, etc., with or without spring	Kilog.	800
Table or church:		
Plain and simply polished	"	1,300
Worked or ornamented, gilded or silver-plated etc	"	2,500
Wire-ribbons, fringes, galloons, cords, lace, ribbons and other fine wares, gilded or silver-plated, or spangled	Kilog.	3,000
Plates:—		
Smooth, for engraving purposes	"	500
Engraved with inscriptions, for letters and other papers, or commercial documents, etc	Kilog.	16,000
Do. do. for stamps, etc	"	4,000
Fixed upon lead or other metals, and upon wood	"	1,000
Collars for animals	"	3,000
Rosaries, gilded or silver-plated	"	4,200
Epaulettes, shoulder straps, etc	"	3,000
Spurs:—		
Large, called Chilian, etc	Doz. pairs	10,000
Not otherwise mentioned	"	5,000
Stirrups:—		
Filed	"	4,000
Polished:		
With springs	"	16,000
Without springs	"	8,000
For side-saddles	Dozen	6,000
Known as "marchepieds" or "cacambas," large or small	Doz. prs.	20,000
Locks:—		
With only one turn and without hole in the key	Kilog.	1,200
With two turns and secret ward, and others not specified	Kilog.	2,000
NOTE.—The above is only a portion of the revised customs tariff of Brazil, the remainder not having been published at the time of going to press.		

Argentine Republic.—Under the existing treaty with the United States, freedom of trade to the fullest extent is recognized between the two nations. The vessels and merchandise of either enjoy at the ports of the other all the privileges granted to the most favored maritime power. Thus it is that no discriminating duties, on account of nationality, of growth, or production, can be levied on goods, nor higher dues or charges on vessels at the ports of either of them, than would be levied on their own national vessels. Shipmasters and other citizens of the United States can freely do business and manage their own affairs in the Argentine Republic; and the citizens of the latter have the same rights in the United States.

The following regulations are strictly enforced. Vessels arriving at ports of the republic are required to produce a manifest setting forth the marks, numbers, nature, and quantity of packages on board, together with their contents, which document must in every respect agree with the bills of lading, as well as bear the visa of the Argentine consul at the port of departure. If the vessel is bound to more than one port of the republic, a manifest must be produced for each place, and each separate passport must be visèed by the Argentine consul.

For a vessel in ballast her commander must make a declaration of the fact to the consul, who will provide him with the requisite certificate. The document must be produced by the master on arrival at his destination. Argentine consuls are authorized to collect fees for their services as follows: From vessels of 100 to 150 tons, $6; of 150 to 200 tons, $8; of 201 to 250 tons, $10; of 251 to 300 tons, $12; of 301 tons and upwards, $14. These rates are for a vessel bound to a single port; but if it be going to two ports or more, one-half additional for each port. Vessels in ballast pay one-fourth of the above rates. The consul will deliver to the master the certified manifest or manifests, or the certificate of his vessel being in ballast, as the case may be, in a sealed envelope addressed to the customs authorities at the port or ports of destination. Should there be no Argentine consul at the port of departure, the master must procure one or more custom house manifests, as his case may require; and in the event of stopping at any intermediate port where there is an Argentine consul, the master must have his papers duly visèed by him. The penalty for non-compliance with this requirement is a fine of double the amount of the consular fees. Port charges at Buenos Aires: Riachuelo wharfage:—Vessels from 5 to 100 tons, daily, 4 cents per ton; over 101 tons, daily, 5 cents per ton. Port charges are levied only on the entry of vessels, at rates varying from 10 cents on sailing vessels of 10 to 50 tons, and gradually increasing for every additional 50 tons, until for 151 tons and upwards the rate is 60 cents. Lighters, from the roads, 10 cents; steamers according to tonnage, half price; sailing vessels, entering and leaving in ballast, half-price. Pilotage:—The cruising ground of the pilots is usually off Cape Santa Maria, about 10 or 15 miles from the light-house. They are not to be found there in bad weather, their boats being small. If caught by a south-west wind or "pampero," they either make for the anchorage under the lee of Cape Santa Maria, or run under Cape Castillo; if it is a south-easter, they run for Maldonado. None but pilots of the country can perform the duties of such for direct navigation to Argentine ports. The regulations about pilots are very strictly observed, and any vessel found navigating with an unlicensed pilot is required to pay double pilotage; the same is required of a vessel sailing without a pilot in the wake of another vessel having one. The rules of the port are very explicit, and masters of vessels must conform thereto and save themselves trouble and heavy pecuniary loss. One of the rules is that two-thirds of a vessel's crew, at least, shall be always on board ready for duty, or she must answer for damages occasioned by her. On the other hand, damages suffered by ships while in charge of pilots, if the latter are convicted of intentional mischief or neglect, the pilot company called "Argentina República" make good the damages. The schedule for pilotage from Buenos Ayres to Point Indio, and vice versa, ranges from 40 patacones for 9 Burgos feet, increasing 10 cents for every foot to 130 patacones for 21 feet. From the meridian of the English bank to Buenos Aires, and vice versa, fifty patacones are paid by vessels of 50 tons, to 150 patacones by vessels drawing 21 feet. Light dues, 8 cents per ton; captain of the port, $20; health visits, $25; bill of health, $25. Harbor dues:—National vessels and those assim-

ilated by treaty, $3; those not so assimilated, $4. Vessels which merely touch at a port have to pay only half the above charges. Revenue:—The congress of the Argentine republic made several important changes in the tariff for 1888.

All duties on exports from the country are abolished. This makes a saving for shippers, of 4 per cent. on wools, sheepskins, ostrich feathers, and felts; and of 2 per cent. on animal oils, horns, bones and bone-ash, hair, hide-cuttings, tallow and hides. To compensate for the loss from this source, import duties have been increased on a number of articles. For instance, on cigars from 55 per cent. to 60 per cent.; on tobacco, from 50 to 55 per cent.: on arms and munitions, powder, and perfumery, from 45 to 50 per cent.; on groceries, edibles, etc., excepting rice, farina, and table salt, from 25 to 30 per cent. The specific duty on refined sugar was raised from 7 cents per kilo. to 9 cents per kilo.; on wines, liquors, etc., from 22 to 25 cents per liter.

The following is the new tariff which went into effect January 1st, 1888:

Art. 1. All merchandise imported from abroad for consumption pays a duty of 25 per cent. ad valorem in deposit, except as follows: cigars, tobacco, arms and munitions, and perfumery, which must pay as stated above.

Ready-made clothing, confections in general, hats and caps, boots and shoes, saddles and harness, carriages, furniture, matches other than wax, fire-crackers, yerba-maté, and objects of art pay 45 per cent. Groceries, edibles, etc., as above stated. Iron, ungalvanized, in sheets, bars, ingots, etc., white pine, spruce, printing and writing paper, pay 10 per cent.

Canvas and sack-cloth, jewelry, gold and silver worked, sewing and embroidery silk, all implements and instruments with handles, or adorned with silver and gold, when these increase their value one-third; presses and all materials for printing except types, lithographic presses, agricultural and industrial machinery, coarse salt, steam-engines, and detached pieces of machinery for repairs, threads and wire on spools, sulphuric acid, and sulphate of lime, pay 8 per cent. Precious stones, unset, pay 2 per cent.

The following commodities are subject to specific duties:

Wheat, per 100 kilograms	$ 1.65
Starch, for each "	0.05
Coffee, " "	0.08
Macaroni, " "	0.07
Crackers and biscuits, for each kilogram	0.09
Wheat flour and corn meal " "	0.04
Tea, per kilogram	0.30
Sugar, unrefined, per kilogram	0.07
Sugar, refined	0.09
Common wines, in casks, per liter	0.08
Fine wine, in casks, per liter	0.25
Wine, bottled, per bottle	0.25
Beer and cider, bottled, per bottle	0.15
Alcohol, in casks not exceeding 30°, per liter	0.15
Brandy, gin, anise, etc., in casks, not exceeding 25° per liter	0.20
Alcohol, bottled, not exceeding 25°, per bottle	0.20
Brandy, gin, anise, etc., bottled, not exceeding 25°, per bottle	0.25
Liquors, bitters, sirups, etc., per bottle	0.25
Kerosene, per litre	0.05
Stearine and paraffine candles, per kilogram	0.12
Playing cards, per gross	10.00
Wax matches, per kilogram	0.50
Straw-paper bags and wrapping paper, per kilog.	0.10

All articles of weight, with two or more wrappings, if they pay specific duty, include the immediate covering.

The following articles are free from import duty: Works of art, original paintings and sculpture, books in general, vessels and machinery for vessels, no matter how propelled: mineral coal, ploughs, wire for fencing and telegraphs, blood animals and live stock, fresh fish, fresh fruit, furniture and tools of immigrants, silver and gold, coined, in dust, or in bars; plants, railway and tramway materials, locomotives, car-wheels, iron pipes for gas and water, of at least 75 millimetres diameter; quicksilver, sand, and gravel, shooks and cask frames of more than two kilograms, special mining powder, drilling machines, church ornaments, or for purposes of religious worship, sulphur, books, and school stationery; at request of boards of education, seeds for agriculture,

specifics for curing sheep-scab, wooden casks, materials for preparing meats for export, and all articles excepted by special laws.

By a supplemental law there is a duty of 1 per cent. additional to the rates above specified on all imported articles.

The government resolved to revise the tariff of valuations.

Port charges at Rosario.—Pilotage from Montevideo, 8 ounces or doubloons, for vessels drawing 15 feet or less, and from 8 to 12 doubloons for those drawing over 15 feet. Light dues, ½ real per ton. Port dues on vessels entering Rosario, 5 Bolivian pesos (75 cents each peso) per vessel of 100 tons, and 10 Bolivian pesos for those over 100 tons; the same on clearing, if loaded. Stamp on the crew list, 2 reales; ditto on clearance paper, 4 reales; ditto on the manifest, 6 reales. Private charges:—Ballast, 1 boliviano per ton, lightered alongside, but if the vessel can go alongside the sandbank, she can take in all the ballast she needs free of charge; beef 2½ to 3 cents per pound; other supplies can be obtained at moderate prices; commissions on charters, 2½ to 5 per cent. Vessels consigned to foreigners are generally charged 2 doubloons for entry fee, besides the address commissions. At San Nicolás a vessel of about 210 tons, which receives a cargo, will pay about $150, including pilotage. Labor per day is $1.25 in gold.

Uruguay.—The commercial relations of this republic with the United States are on the footing of equality with that of the most favored countries. American ships are not subject in Uruguayan ports to other restrictions than are common to the most favored nation. Uruguayan vessels have the same privileges in ports of the United States. Great Britain and France have treaties with Uruguay based on the principle of reciprocity.

Port charges at Montevideo:—Pilotage is a matter of agreement, being from $50 to $100 from the mouth of the river for large ships. The charge for harbor pilotage is small. Vessels are required to employ pilots. Ships calling at Montevideo for orders, if ordered to Buenos Aires, must take a Montevidean pilot to point Indio, paying, if drawing under 21 feet, $6 per foot; if over 21 feet, $7.50 per foot; at point Indio, an Argentine pilot, paying $9 per foot to Buenos Aires. Pilotage being in all cases compulsory, if a vessel bound to Montevideo direct, on being spoken at the mouth of the river by a pilot-boat, refuses to take a pilot, she is compelled to pay half-tariff. Vessels bound up the Uruguay river make their terms, and choose their own pilots. Anchorage dues:—Tonnage from beyond sea, for a foreign vessel, 3 reales; for a national one, 2 reales. During loading and unloading, all vessels pay $1 per day. Pratique with pilot, a foreign vessel, $8; a national one, $2. Boat for all, $2. Pratiques without pilot, a foreign vessel, $4; a national one, $2. National and foreign vessels neither discharging nor taking cargo, and not remaining more than 6 days, pay nothing; those staying in the harbor more than 6 days pay one-third the tonnage dues. Port dues:—Ten cents per ton on vessels coming from sea; and 4 cents on those regularly trading to Montevideo. Light dues:—Four cents per ton on every vessel from or to places outside the capes. Hospital dues:—Uruguayan and foreign vessels sailing for a foreign port, beyond sea, or on the La Plata river, pay $2 for the vessel, 4 reales for the captain, 2 reales for each seaman, $1 for each passenger. Private charges:—Ballast, sand, 75 cents to $1 per ton; stone, $2 or more per ton. Labor:—Discharging coal, costs about 40 cents per ton. The expenses of a ship of about 1,700 tons, discharging coal at Montevideo, will be about $1,500. Commissions:—Collecting freight,

2½ per cent.; providing freight, 5 per cent.. On disbursements, 2½ per cent, besides interest and insurance, where the merchant makes advances.

Port charges at Paysandú:—Pilotage from Montevideo, $60 to $100; harbor dues have been abolished; light dues, 15½ cents per ton register; custom house charges, opening and closing register, etc., for vessels under 200 tons register, $24; 200 to 500 tons register, $45; 500 tons register and upwards, $60; notaries, $4.80; bill of health, $4; stamps $4 to $5. Vessels loading outwards pay the same. A foreign vessel of 200 tons will probably pay $70 to $80, besides pilotage.

Customs Tariff of Uruguay.

Articles paying a duty of 51 per cent. *ad valorem*.—Brandy; fermented beverages; liquors of all kinds; tobacco, cigars and cigarettes; playing cards; perfumery; arms; powder and ammunition; cognac; beer; cider; cheese; butter; hams; preserved meats; preserves in bottles and flasks; curried leather for shoes; fog signals.

Articles paying a duty of 47 per cent. *ad valorem*.—Wines of all kinds, in casks or bottles; shoes of all kinds; ready-made clothing and made-up goods not otherwise mentioned; hats; furniture; carriages; harness; drugs; "tafia."

Articles paying a duty of 43 per cent. *ad valorem*.—Biscuits of all kinds; chocolate; candles of wax or composition; candles, tallow; candles, stearine; matches of all kinds; starch; vermicelli; sweetmeats.

Articles paying a duty of 41 per cent. *ad valorem*.—Tobacco, in the leaf and cut.

Articles paying a duty of 31 per cent. *ad valorem*.—Tissues of pure cotton, viz., madapolam, calico, madras, neckerchiefs, striped cloths, prints, cambric, glazed lining, etc.

Articles paying a duty of 20 per cent. *ad valorem*.—Wood of all kinds in the rough; iron in plates, bars and ingots; steel in bars or plates; copper and bronze in ingots; zinc in sheets and ingots; lead in bars, sheets or ingots; fresh fruits; files for roofing and flooring; plain tiles; roman cement; resin or pitch; charcoal and firewood; mercury; tin; talc; plaster; tar; jute cloth in pieces; ropes and twines less than half an inch in thickness.

Articles paying a duty of 12 per cent. *ad valorem*.—Potatoes.

Articles paying a duty of 8 per cent. *ad valorem*.—Wire fencing of iron; threshing machines for maize; ploughs; reapers and knives for reapers; steam machinery for ships or manufactories of more than 1 h.-p.; printed books, stitched; printing and lithographic machinery or presses; printing type; white paper for journals; lithographic paper in reams of from 87 to 64 centimetres; printing ink; soda; hops; saffron; flower, clover and vegetable seeds; jewels; silver, manufactured; watches; acids—sulphuric, nitric, chloric, potash; agricultural implements; machinery intended for use in agriculture, railways and manufactures; casks and cases; phosphorus in sticks; bark for currying; quebracho wood, in pieces less than 1 metre, intended for making saw-dust; hemp; dyewood; sewing machines; empty flasks; bottles of black glass; empty match boxes.

Articles paying a duty of 6 per cent. *ad valorem*.—Books printed in native languages; charts and geographical globes; scientific instruments; coal; sea or rock salt; precious stones, not mounted.

Wheat will pay a specific duty in proportion to its market price, as follows:

1.25	dollars per 100 kilogs.	when sold at	4.00	dollars.
1.09	"	"	"	4.01 to 5.00	"
0.75	"	"	"	5.01 " 6.00	"
0.25	"	"	"	6.01 " 7.00	"
0.125	"	"	"	7.01 " 8.00	"

Duty free when sold at more than 8 dollars.

Maize will also pay a specific duty in proportion to its market price, as follows:

0.75	dollars per 100 kilogs.	when sold at	2.00	dollars.
0.60	"	"	"	2.01 to 3.00	"
0.40	"	"	"	3.01 " 4.00	"
0.20	"	"	"	4.01 " 5.00	"

Wheat flour will pay an *ad valorem* duty according to the market price of wheat, as follows:

32½	per cent.	when wheat is sold at	2.40 to 3.20 dollars.
27½	"	"	3.21 " 4.00 "
22½	"	"	4.01 " 4.80 "
17½	"	"	4.81 " 5.60 "
15	"	"	5.61 " 6.40 "
12½	"	"	6.41 " 7.20 "
10½	"	"	7.20 " 8.00 "
7½	"	"	8.01 and above.

The following articles are admitted free of duty: Articles used for the purpose of religious worship at the request of ecclesiastical authorities; articles intended for the use of diplomatic agents of those countries in which the representatives of Uruguay enjoy the same privilege; steamships imported in detached parts, to be put together in the country; gold and silver in bars or powder; sheep dip; living plants; live animals; personal effects; hand tools; materials intended for the construction of ships.

All other articles are liable to an import duty of 30½ per cent. *ad valorem*.

Under the existing treaty between the United States and Paraguay, concluded in 1860, vessels of the former are entitled to the free navigation of the Paraguay river, with the further privilege of discharging their cargoes, or portions thereof, at Pilar, (50 miles below the Paraguay,) or of proceeding to Asuncion. American vessels have all the privileges granted to the most favored nation, and their port charges, as well as the duties on their cargoes, are the same as those paid for Paraguayan vessels and their cargoes.

By the treaty of 1851, between the United States and Perú, the two governments mutually agreed that there should be reciprocal freedom of trade and navigation between their respective territories and citizens. The stipulations are to the following effect: No higher or other duties or charges for tonnage, light-house, or harbor dues, pilotage, quarantine, salvage, etc., shall be levied on United States or Peruvian vessels of 200 tons or upwards, than are payable in the ports of the other contracting party on her national vessels of the same tonnage. The coasting trade is reserved by each country for vessels of its own flag. Imports in United States or Peruvian vessels at the ports of either nation, are subject to the same duties as similar imports in national vessels, and if of the products or manufactures of one or the other contracting parties, the duty is to be no higher than that imposed on the products or manufactures of any other nation. There is a like equality regarding exports. The port and custom house regulations are nearly the same as those enforced elsewhere, and are intended to preserve order, promote good health, and prevent smuggling. Under a law of 1886, all invoices of goods shipped to Perú must be verified by Peruvian consuls abroad. Such invoices must conform with the manifest of the vessel conveying them; if they do not, an extra duty of 25 per cent. will be levied on them; if the goods are duty-free, the 25 per cent. will be collected on their value. Moreover, the commander of the ship will be fined from $100 to $1,000, unless he can prove that he had no participation in the infringement of the law.

The following are the expenses of a vessel at Callao:—Official charges: Wharfage, 12 cents per register ton every time that a ship enters the port, and 75 cents per ton, weight or measurement, on all cargo discharged or embarked. Tonnage dues: 25 cents, silver, per register ton, paid every six months. Light

dues: 1¼ cents per register ton, every time the vessel enters the port. Hospital dues: 4 cents per register ton every six months. Private charges: discharging coal and heavy cargo is usually at the rate of 45 tons per day; lumber, at the rate of 25,000 feet per day. A charge of 75 cents per ton weight or measurement is made on all cargo discharged or embarked, and is paid by the vessel. All vessels of over 10 tons burden, must load or discharge at the dock. Ballast: 12 soles per lighter of 12 tons. Commissions: Consignees collect from each ship arriving with cargo, the port charges of 150 soles; for recovering the inward freight, 2½ per cent., and on the outward, 5 per cent. Repairing: The dock company, whose iron floating dock can take up the largest ships, has established the following schedule for sailing vessels: 1st day, 50 cents per register ton; the four following days, 25 cents per ton; each subsequent day, 25 cents per ton; for steamers and war vessels, the first day, nothing; the four following days, 75 cents per ton; each subsequent day, 50 cents per ton. Vessels are stripped, caulked, and re-metalled for 1¼ soles per sheet, which includes dock dues and all materials. Spars and timber are very costly. Carpenters' wages are from 2 to 5 soles per day, and common laborers' from 1 to 2 soles per day. Water is worth $2.40 per ton; coal, from $10 to $20 per ton; occasionally a little lower. The following figures indicate what the expenses are likely to be for 2 foreign vessel of a given tonnage at the ports hereinunder named: At Ancon, a ship of about 1,200 tons, engaged in her operations 33 days, $1,430; at Mollendo, a ship of 1,100 tons, which discharged coal, about $1,760, including cost of ballast, which is high and difficult to obtain; at Payta, a ship of 1,100 tons, which loads with guano, and calls at Payta for her clearance, and fitting out, will incur an expense of $950 to $1,000; at Pabellon de Pica, a ship of 1,550 tons, which lay at the place 2¼ months, loading 2,250 tons of guano, had expenses (including $150 for official fees, and $304 for wages advanced to the crew) of $2,196; at Pisagua, a vessel of 800 tons, loading nitrate, incurs expenses amounting to some $165; at Pisco, a ship of 1,100 tons, which discharges in the port, will probably have to pay about $1,750.

A law of June 2d, 1885, provided that the so-called Inca notes of $5, and the $500 treasury notes should be received in full payment of the 10-per cent. extra duty, and for 20 per cent. of the duties to be collected at Mollendo. The decree was revoked on February 26th, 1886. But under a decree of March 1st, 1886, duties to be defrayed at Callao may be in silver dollars, or in bills on banks in Callao and London. Owing to fluctuations and depreciations of the silver currency circulating in Perú, it was decided to use the American gold dollar as the basis of monetary transactions, using the silver dollar at the value of 80 cents gold for all fractions under a quarter of an eagle ($2½).

The following are the rates of customs duties levied on the following articles imported into Peru:—

Articles paying an *ad valorem* duty of 10 per cent.:—Cocoanut and palm oil; steel in plates or bars; animals, living or dead; printed advertisements; medical almanacs; quicksilver; naval stores; dried peas; oats; sperm and seal oil; needles for sewing machines; grooving planes; pincers; rivets; adzes; colza oil; sulphuric acid; tar and pitch; steam pumps; ice; fire engines; ships' varnish; trowels and shovels; augers; gimlets; kegs; carpenters' braces and bits, burnishers; casks; rope; wool or cotton combs; brushes; shoemakers' wax; chisels; coopers' and carpenters' knives; copper in leaves, bars, pipes; copybooks for schools; memorandum books; newspapers; barley, green or parched; corks for bottles; Roman cement; bolts for ships; cocoanuts and nuts, termed Guayaquil and Panamá nuts; iron knees; cane and Guayaquil logs; rye; salt meat; animal charcoal; coals and charcoal; "Charqui" (dried meat); screw-drivers; diamonds for cutting glass; dismantine; shoemakers' tools; staves; vises; squares; tow for caulking; boats; emery; blades for planes; tools for moulding; tools for punching; tools for soldering; pig iron; felt, tarred or otherwise, for lining; vessels and boilers; iron poles; detonator for mines; dried beans: long and short planes; gauges; gouges; sand cloth; miners' fuses; iron wire; blades for hand-saws; tin in plates; eggs; tools and implements used in agriculture, mining, trade and industry; surgical, mathematical, scientific and other instruments; ships' tackle; files, fire and building bricks; books, excepting missals and devotional or other works with ornamental bindings and clasps; lentils; vegetables, fresh or dried; hops; composite metal plates for sheathing vessels; hammers; wooden measures; carpenters' mouldings; steam engines for agricultural, mining and industrial purposes; sewing machines; levels; gold and silver, manufactured (including jewellery, mounted or not); straw for hats and brooms; gold and silver lace; chenille, spangles, beads, borders, fringe, tassels, scutcheons, tufts, etc.; resin; mill-stones for sugar and other mills; lithographers' stones and minerals; lithographic and printing presses;

fish, dried or salted; lead in bars or plates; spades; carpenters', shoemakers', saddlers' and book-binders' presses; furbishers; sand paper; watches; hand and other saws; seeds (excepting drugs); lard (for soap boiling); tin and copper soldering; jerked beef; screw-plates; saw-sets; small boards for ornamenting cases; mould; fire clay; and earth for cleaning boilers and purifying wines; printers' ink; zinc in plates, bars, or ingots.

Articles paying a duty of 20 per cent. *ad valorem* :—Linseed oil, raw or boiled; spirits of turpentine; indigo; ordinary glass bottles for wine, beer, liquors and lemonade; painters' brushes; metal caps for bottles; nails, wire, iron, or zinc, excepting porcelain, china or brass headed nails; stoppers for bottles; horse hair, real and imitation; tanners' bark; woods, ordinary or fine for inlaying furniture; pitch brushes; iron, in plates, corrugated and galvanized; straw envelopes for bottles; gum lac; metal for alloying; train oil; ginger or drugs for coloring wine; dove-tailed boards; marble in slabs, unpolished; stearine; marble blocks, rough; copper boilers over 46 kilos. weight; ordinary oil paint; iron troughs; poison in paste or liquid for tanners.

Articles paying 25 per cent ad valorem:—Rice, lard.

Forty per cent. *ad valorem* is now levied upon such goods as previously paid 40 and 45 per cent. The principal of these are cotton, linen, woollen and silk goods, ordinary medicines, articles of copper, brass and bronze, cutlery, leather, porcelain, umbrellas, common paper, haberdashery, ornaments of iron and brass, tissues of aric gauze, etc.

Forty-five per cent. *ad valorem* is levied upon such goods as previously paid 50 per cent. The principal of these are ready-made clothing, furniture, and patent medicines, etc. (excepting copper in plates).

Sixty-five per cent. *ad valorem* is levied on such goods as previously paid 70 per cent. The principal of these are buscuits, cheese, spirits, beers, wines, etc.

Flour now pays a specific duty of 3½ cents (silver) per kilo, corn 1 cent per kilo, opium 2 soles per kilo; petroleum 6 cents per liter; beer in bottles 1 sole 80 cents per dozen.

Gold and silver in bars or coined is free of import duty, also paper for newspapers, not hot pressed, maps and geographical globes.

Chili.—Under the treaty of 1834—still in force—with her and the United States, vessels of the former are placed at the ports of the latter on the same footing with those of the most favored nation, and vice versa. Vessels of either country driven by stress of weather into the ports of the other are protected and favored in every respect. Imports, the produce or manufacture of any country—not forbidden to be imported—are subject to the same duties, charges, and fees, under the flag of the United States, or that of Chili, at the ports of the other, as when imported by vessels of the most favored nation. Citizens and merchants of either country can reside within the territory of the other, and manage for themselves their commercial affairs. All favors granted by Chili, subsequent to the date of that treaty to other nations, are also to be enjoyed by citizens and vessels of the United States, and vice versa. The government of Chili, on the 31st of October, 1850, notified that of the United States that no other, or higher duties would be levied on vessels of the United States, no matter whence they came or of what origin might be their cargoes, than were levied on national vessels under like circumstances. Vessels from foreign ports entering ports not open by law to foreign trade, are liable to confiscation. Coasting trade is reserved for vessels under the national flag; but foreign ships are permitted to discharge their inward cargoes in more than one port, and load outward in the same manner.

No communication is allowed from a vessel with the shore until she has been visited by the health officer and custom house authorities. The master must produce his general manifest or bill of lading, and a list of his stores. Twenty-four hours are allowed for the correction of errors, after the termination of which heavy fines are imposed.

The following law, sanctioned by the Chilian congress, went into effect in September, 1877. The following clauses affect foreign commerce, namely:

No vessel shall sail for a foreign port without having been surveyed to insure that she is seaworthy. If she is under a foreign flag, her consul's permission to sail must be first obtained. Vessels engaged in the coasting trade must be surveyed; if sailing vessels, once every year; if steamers, once every six months. Bills of health are not to be issued to any master of a vessel who fails to produce the list of the crew signed, if a Chilian vessel, by the proper maritime authority, and if a foreign vessel by her consul. Any vessel whose cargo is badly stowed, may be detained; the same rule applies to any vessel of which there is reason to fear a disaster. Any Chilian master attempting to proceed to sea contrary to the orders of the maritime authority, will incur the penalty of imprisonment (presidio mayor en su grado mínimo), and in future be disqualified from holding an officer's position in the national marine.

Captains, on arrival, must deliver to the maritime authority, under a receipt at the time of the first visit, all correspondence or printed matter on board the ship from the coast, or from abroad, for places in the republic, excepting only such as may be addressed to his consignees, provided the weight thereof does not exceed 150 grams. Other employés and passengers are bound by the same rules. Violations of these rules will make their authors amenable to severe peculiary penalties. Pratique will be allowed to no vessel until these rules have been complied with. Vessels, whether propelled by sails or steam, must not receive on board more passengers than they can conveniently accommodate. Maritime authorities are empowered to detain vessels failing to comply with this regulation. No merchant vessel shall carry passengers on deck, either to ports in Chili, or abroad, if there be not placed over them at a proper height, an awning or covering of boards or canvass, water-tight, and sufficient to protect them from bad weather. Such passengers, in default of an especial agreement, must be allowed rations similar to those dealt to the seamen of the Chilian navy. Vessels on arriving at Valparaiso are directed by the captain of the port where to cast anchor. They must not move from one place to another without permission, unless in case of danger. Vessels moor in Valparaiso with head to the north, and three anchors with 270 fathoms of bow-chain are required, two-thirds used forward, and one-third aft. From May to August these precautions are absolutely necessary for safety. The expense of mooring is from $2 to $4 per day. All vessels coming to Chilian ports are required to pay hospital dues at the rate of 10 cents per register ton, which covers the use of other ports in the same year; but if one or more ports are used after December, then the vessel must pay 10 cents per ton in addition. Light dues are levied on vessels arriving with cargo from foreign ports, provided they discharge at least 50 packages of merchandise, or 50 tons of coal, etc. If less than 50 packages or tons, the charge is only 25 cents per package or ton. Pilotage is not compulsory. The rates vary in Valparaiso from $9 for a vessel of 200 to 300 tons, to $21 for one of 800 to 900 tons, and $28 for one of over 900 to 1,000 tons and upward. The towage in and out of port is from $20 to $50, according to size. For mooring a vessel the charge is 10 cents per register ton. Merchants' commissions are as follows: For collecting the inward freight, 2½ per cent.; on the vessel's disbursements, 2½ per cent.; for procuring a charter or freight, 5 per cent.; on sales of goods, 5 per cent. Especial charges at other Chilian ports are as follows: At Coquimbo, pilotage varies from $5 for a vessel of 100 tons, $21 for one of 800 to 1,000 tons, to $25 for all larger ships, besides $8 for a mooring launch, if required. The port agent's fee is $25; the merchants' commissions are the same as at Valparaiso. Ballast costs 75 cents per ton alongside the ship. At Constitucion: Pilotage, $4 to $6 inward and outward; mooring, $4; unmooring and launch hire, $4; bill of health, $5; towage, 20 cents per ton; landing ballast, 25 cents per ton. Water costs $2.50 per ton; laborers' wages, $1 per day. The agent, for entering and clearing a vessel, charges from $10 to $20, according to size. At Caldera, the pilotage of a vessel measuring 1,000 tons, is $15 inward, and $10 outward. The

expenses of an American ship of 1,200 tons, which loads a cargo of coal, would be about $1,200. At Talcahuano: Pilotage is not compulsory; the charge is $12 per vessel employing a pilot. Other charges are: Landing ballast, 30 to 40 cents per ton; use of bags, 6 to 7 cents apiece; brokers' fee, $50; merchants' commissions are the same at all ports as in Valparaiso. At Mejillones the expenditure of a ship of 1,280 tons may be about $650.

In continuation is given the tariff of duties on imports. It will be seen that on some articles a specific duty is levied; on others a certain percentage upon a fixed valuation; and again on others a certain rate upon the appraisement that will be made by the customs authorities at the time the goods are entered for consumption. In addition to the rates specified in the tariff, there will be, from and after the first of January, 1889, an extra charge of 50 per cent.

Customs Tariff of Chili.

Peso=4s 2d. Kilogram=2.204 lbs. avoirdupois. Metre=1.094 yards.

ARTICLES, ETC.		VALUATION.	DUTY.
		Pesos Centos	
Beads and other small ornaments of glass		*	35 p.c. *ad val.*
Fans of all kinds		—	"
Glove stretchers:			
Of wood	Dozen.	3.00	25 p.c. *ad val.*
Of bone or ivory	"	18.00	"
Oil of every kind		—	"
Olives, preserved in oil or salt	Kilog. from	0.12	"
	to	0.35	
Chicory, ground, gross weight	Kilog.	0.20	"
Achiote (drug in bottles or packets), including the package	Kilog.	1.50	"
Alcohol in bottles or ordinary flasks (specific duty)	Dozen.	10.00	Doz. 4.00
Alcohol in other receptacles (specific duty)	Litre	0.70	Litre. 0.42
Albums of all kinds		—	35 p.c. *ad val.*
Damask cloth, of white cotton for napkins, serviettes, etc., including the paper packing	Kilog.	1.60	25 p.c. *ad val.*
Damask cloth, of white linen, etc.	"	2.40	35 p.c. *ad val.*
Damask cloth, of linen, etc., superior		*	"
Carpeting:			
Carpets for use in churches, of velvet, with or without mixture of cotton, hemp or jute, net weight	Kilog.	3.25	"
Carpets, of velvet damask, with or without mixture of cotton, hemp or jute, net weight	Kilog.	2.25	"
Carpet, of fur	Each.	8.00	"
For floors, fine	"	*	"
Cotton:			
In the seed, gross weight	Kilog.	0.18	Free
Raw, out of the seed, gross weight	"	0.33	"
Prepared for lining garments, net weight	Kilog.	0.75	25 p.c. *ad val.*
Do. with raw silk	"	3.00	"
Almonds, unshelled, in wooden packages, gross weight,	Kilog.	0.23	35 p.c. *ad val.*
Almonds, shelled, in packages of wood, faience, tin, or iron, including the package	Kilog.	0.65	"
Starch, gross weight	"	0.12	25 p.c. *ad val.*
Canary seed, gross weight	"	0.08	"
Tar, common, gross weight	"	0.05	Free.
Alpaca:			
Common, of wool and cotton, plain, up to 28 threads in the warp and woof		—	25 p.c. *ad val.*
Do. up to 33 threads for each centimetre of width		—	"
Do. up to 37 threads for each centimetre of width			
Do. up to 40 threads for each centimetre of width			
Of wool or cotton, colored, plain, superior to the preceding		*	"
Do. figured or twilled		*	"
Strong, black, of wool and cotton, for women's dresses		—	"
Do. superior		—	"

*The value to be fixed by the authorities after customs inspection.

Articles, etc.		Valuation. Pts. Cs.	Duty.
Bitters, in flasks or bottles, gross weight	Kilog.	0.40	35 p.c. *ad val.*
Anchovy paste, gross weight	"	0.60	"
Animals, living		Free.	Free.
Packing-cloth, common sack-cloth of hemp, plain or twilled, gross weight	Kilog.	0.30	15 p.c. *ad val.*
Rice:			
In the husk, gross weight	"	0.09	25 p.c. *ad val.*
Ground	"	0.25	"
Dried peas in wooden boxes, gross weight	"	0.07	"
Razor strops	Dozen.	4.00	"
Asbestos, whole or ground, gross weight	Kilog.	0.06	Free.
Table mats		—	25 p.c. *ad val.*
Hazel-nuts, unshelled, in wooden boxes, gross weight	Kilog.	0.12	35 p.c. *ad val.*
Oats, gross weight	"	0.06	Free.
Mercury	"	1.00	"
Sugar:			
Refined, loaf, lump, or crushed, dry or moist, irrespective of country or origin	Quintal.	23.00	35 p.c. *ad val.*
White (such as Rosa Emilia), ground or coarse, moist or dry, 80.434 per cent.	Quintal.	18.50	"
Granulated, first product, moist or dry, 60.869 per cent.	Quintal.	14.00	"
Granulated, second product, moist or dry, 45.652 per cent.	Quintal.	10.50	"
Nos. 20, 19, 18, 17, Dutch Standard, moist or dry, 70.434 per cent.	Quintal.	16.20	"
Nos. 16, 15, 14, 13, Dutch Standard, moist or dry, 58.695 per cent.	Quintal.	13.50	"
Nos. 12, 11, 10, 9, Dutch Standard, moist or dry, 45.652 per cent.	Quintal.	10.50	"
Nos. 8 to 1, Dutch Standard, moist or dry, 37.826 per cent	Quintal.	8.70	"
Whalebone, raw, or manufactured, in any form		—	25 p.c. *ad val.*
Baréges:			
Of wool and cotton, from 55 to 60 centimetres wide, up to 8 threads in the warp	Metre.	0.10	"
Do. up to 5 threads	"	0.12	"
Do. above 5 threads	"	0.16	"
Of wool, from 55 to 60 centimetres wide, up to 8 threads in the warp	Metre.	0.14	25 p.c. *ad val.*
Do. up to 5 threads	"	0.18	"
Do. above 5 threads	"	0.24	"
Of wool and silk, from 55 to 60 centimetres wide, and up to 8 threads in the warp	Metre.	0.20	"
Do. up to 5 threads	"	0.25	"
Do. above 5 threads	"	0.30	"
Varnish, common, for ships	Litre.	0.10	"
Copal varnish, common	"	0.50	"
Wood varnish, in bottles or tins	"	1.00	"
Do. do. in flasks, up to 115 grams, gross	Dozen.	2.50	"
Amber varnish for photographers, including the covering	Kilog.	2.00	"
Barrels:			
New, mounted, the staves of which do not exceed 20 millimetres in thickness	Litre.	0.02	"
Do. old	"	0.01	"
Empty, small, of wood, up to 4 litres capacity	Dozen.	3.75	"
Do. up to 8 litres	"	5.25	"
Do. up to 12 litres	"	7.00	"
Walking sticks		*	"
Baize, of wool, called "pelon," with long hair, sash or small baize	Kilog.	1.00	"
Do. of wool, with mixture of cotton, gross weight	"	1.20	"
Blacking for shoes, in small boxes of tin or wood, gross weight	Kilog.	0.18	"

*The value to be fixed by the authorities after customs inspection.

ARTICLES, ETC.		VALUATION. Pts. Cs.	DUTY.
Do. in earthen vases, gross weight	Kilog	0.10	25 p.c. *ad val.*
Do. or copper or bronze water, for cleansing carriages and harness, in ordinary bottles	Dozen.	2.00	"
Bank notes, coupons, etc	Kilog.	16.00	"
Ivory billiard balls or imitations of the same, net weight	Kilog.	20.00	35 p.c. *ad val.*
Balls of stone, in wooden cases, gross weight	"	0.10	"
Do. of marble, porcelain or glass, in wooden cases, gross weight	Kilog.	0.27	"
Do. of faience or composition, in wooden cases, gross weight	Kilog.	0.27	25 p.c. *ad val.*
Bags, of paper, for packing	"	0.10	"
Do. with imitation silver or gilt, common, printed or not, for envelopes	Kilog.	1.00	"
Do. of varnished material (satchels), with cardboard inside, having metal threads, common, up to 30 centimetres in width	Dozen.	5.00	"
Do. of waxed cloth (satchels), common, up to 30 centimetres wide	Dozen.	3.00	"
Do. other kinds		*	"
Cigar holders		*	"
Stone bottles, for liquors or other beverages, gross weight	Kilog.	0.03	15 p.c. *ad val.*
Stone water bottles, from 20 to 30 centimetres high,	Dozen.	5.00	25 p.c. *ad val.*
Buttons of all kinds, not otherwise distinguished		—	"
Linen cloth, white or unbleached (for bed clothes), including the paper wrappers	Kilog.	2.00	"
Do. with mixture of cotton	"	1.60	"
Linen cloth, with or without mixture of cotton or jute, bleached or not, for hosiery, including the paper wrappers	Kilog.	1.00	"
Woven tissues, embroidered with gold or silver, braided, figured, ornamented with silver, with or without gilding, including the paper wrappers	Kilog.	100.00	15 p.c. *ad val.*
Do. do. with copper, ordinary quality, including the paper wrappers	Kilog.	5.00	35 p.c. *ad val.*
Do. do. superior, with copper, gilt, or silvered, including the paper wrappers	Kilog.	14.00	"
Pitch for vessels	Kilog.	0.03	Free.
Brushes for shaving, common	Dozen.	2.50	25 p.c. *ad val.*
Do. superior	"	*	"
Do. for copying presses	"	3.00	"
Do. of hair, with ferrules of bronze or copper, for painting	Dozen.	4.00	15 p.c. *ad val.*
Do. of hair or esparto, with ferrule of hemp or metallic thread	Dozen.	2.00	"
Do. large, for marbling	"	10.00	"
Do. of hair, flat, with ferrule of tin, up to 7 centimetres wide, for varnishing	Dozen.	2.50	"
Do. flat, for whitewashing	"	3.50	"
Do. for tarring	"	4.00	"
Human hair, not exceeding 50 centimetres in length, unprepared	Kilog.	12.00	35 p.c. *ad val.*
Do. exceeding 50 centimetres in length	"	20.00	"
Do. of every kind prepared	"	*	"
Cocoa, with or without bark, or in the stalk, gross weight	Kilog.	0.20	25 p.c. *ad val.*
Do. in powder, including the paper wrappers	"	0.40	"
Gold watch chains, without ornaments of precious stones	Kilog.	700.00	15 p.c. *ad val.*
Coffee	"	0.40	0.15 cents per kilogram.
Tea-caddies, of Chinese wood, varnished or gilded, from 15 to 25 centimetres wide	Each	2.00	25 p.c. *ad val.*

*The value to be fixed by the authorities after customs inspection.

ARTICLES, ETC.		VALUATION. Ps. Cs.	DUTY.
Do. up to 30 centimetres wide	Each	3.00	25 p.c. *ad val.*
Do. exceeding 30 centimetres in width	"	*	"
Boxes, of Chinese wood or cardboard, varnished or gilded, for shawls, handkerchiefs, or cloaks	Each	5.00	"
Boxes for confectionery and bonbons	"	*	"
Boots and shoes:—			
Men's boots, of calf skin, common	Dozen	48.00	"
Do. of varnished leather, common	"	72.00	"
Of calf's skin, for sailors		—	"
Wellington boots, of varnished or calf-skin leather or canvas cloth	Pair from 1.50 to	5.50	"
Women's boots and shoes, of leather or woollen material, or mixed with cotton, exceeding 14 centimetres in height, measuring from the top of the sole to the top of the uppers	Dozen from 16.00 to	42.00	"
Do. boots, of silk or of silk mixed with cotton, common	Dozen	40.00	"
Do. superior	"	52.00	"
Children's boots and shoes, of silk or of silk mixed with cotton, with less than 22 centimetres of sole	Dozen from 22.00 to	36.00	35 p.c. *ad val.*
Do. boots and shoes of leather, linen-cloth, wool, or of mixture of cotton, with from 15 to 22 centimetres of sole	Dozen from 10.00 to	18.00	"
Do. boots and shoes of leather or wool, mixed or not with cotton up to 14 centimetres of sole	Dozen from 4.00 to	6.00	"
Women's boots and shoes of leather or wool, with or without mixture of cotton, the uppers not exceeding 14 centimetres in length	Dozen from 12.00 to	30.00	"
Do. of cotton tissue	Dozen	8.00	"
Men's boots of calf, shagreen, kid, or varnished leather		—	25 p.c. *ad val.*
Men's spatterdashes of leather, cloth, or other material, without soles	Dozen	10.00	"
Babies' gaiters		—	"
Uppers of calf, morocco, and shagreen		—	"
Cuttings of varnished leather, kid, or taflet for women's shoes	Dozen	3.50 to 12.00	"
Do. of kid, varnished leather, or morocco sewn, for men's boots	Dozen	15.00 to 18.00	"
Cut clothwork and clippings of taflet or any other skin used for lining boots	Dozen	1.25	"
Slippers and pumps of every kind		—	35 p.c. *ad val.*
Boots and shoes not otherwise mentioned		—	"
Clogs of every kind		—	"
Mushrooms, dried including jars	Kilog.	0.75	25 p.c. *ad val.*
Baskets, for clothes, up to 112 centimetres high, per three baskets	Kilog.	6.00	35 p.c. *ad val.*
Cinnamon	Kilog.	0.50 to 1.00	25 p.c. *ad val.*
Hemp, raw	Kilog.	0.10	Free
Guayaquil bamboos	Hundred	50.00	15 p.c. *ad val.*
Caramel, liquid, for coloring brandy	Litre	0 50	25 p.c. *ad val.*
Coal, mineral (ton of 10 metric quintals)	Ton	8.00	Free.
Charcoal for crayons	Gross	0.75	25 p.c. *ad val.*
Tortoise-shell, manufactured, without incrustation or ornamentation in relief	Kilog.	70.00	35 p.c. *ad val.*
Tortoise-shell, manufactured, with incrustation or relief	Kilog.	100.00	"
Bacon or beef, salted	"	0.12	25 p.c. *ad val.*
Carriages		*	35 p.c. *ad val.*
Geographical and topographical charts and plans		Free.	Free.
Cardboard:			
Common, grey, gross weight	Kilog.	0.08	25 p.c. *ad val.*
Tarred, for roofs, gross weight	"	0.09	"
Fine, for photographs	"	0.80	"

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ARTICLES, ETC.	VALUATION.	DUTY.
	Ps. Ca.	
Cardboard:		
Fine and semi-fine for drawings and portraits.....Kilog	0.50	25 p.c. *ad val.*
Perforated, for embroidery..... "	1.10	"
Cashmere:		
Of wool and cotton, common, plain, from 60 to 75 centimetres wide.....Metre	0.40	"
Do. double width..... "	0.80	"
Of wool and cotton, superior, from 60 to 75 centimetres wide.....Metre	0.50	"
Do. double width..... "	1.20	"
Of wool-waste, figured with the same material, from 60 to 75 centimetres wide.....Metre	0.55	"
Do. double width..... "	1.10	"
Of wool, or with a little mixture of cotton in the design, common and plain, from 60 to 75 centimetres wide.....Metre	1.00	"
Do. double width..... "	2.00	"
Of wool, or with a small mixture of cotton in the design, fine, from 60 to 75 centimetres wide.....Metre	1.50	"
Do. double width..... "	3.00	"
Cacao shells, gross weight.....Kilog.	0.05	"
Chestnuts, shelled or not, in wooden boxes or tins, gross weight.....Kilog.	0.10	35 p.c. *ad val.*
Pearl barley, in wooden boxes or tins..... "	0.12	25 p.c. *ad val.*
Rye.....	Free.	Free.
Brushes		
For shoes.....Dozen 0.60 to	1.50	25 p.c. *ad val.*
Hair, clothes and table, common.....Dozen	3.00	"
Do. medium quality..... "	4.50	"
Do. superior.....	*	35 p.c. *ad val.*
Tooth, of every kind.....Gross	10.00	25 p.c. *ad val.*
Nail..... "	24.00	"
Wax, vegetable or mineral, gross weight.....Kilog.	0.35	"
Shoemaker's wax, white, including the boxes..... "	0.50	"
Beer, in bottles (specific duty).....Dozen bott.	2.50	Doz. bott. 1.25
" in other receptacles..... .....Litre	0.15	Litre 0.02
Cases:		
Cigar, of Peruvian straw, common.....Dozen	1.25	35 p.c. *ad val.*
" superior..... "	18.00	"
Cigarette, of Russian leather, or imitation, plain.. "	12.00	"
Do. fancy..... "	16.00	"
Cigar, of Russian leather, or imitation, plain, large..Doz.	18.00	"
Do. fancy.....Dozen	20.00	"
Cigarette of common leather, small, common..... "	2.50	"
Do. plain..... "	3.50	"
Do. fine..... "	7.00	"
Cigar, of common leather, large.....Dozen from 3.50 to	4.50	"
Do. fine.....Dozen	9.00	"
Do. of sheepskin leather..... "	*	"
Do. or purses, with tortoise-shell, mother-of-pearl, or ivory, small.....Dozen	24.00	"
Do. large..... "	36.00	"
Cigars (specific duty).....Kilog.	10.00	Kilog. 3.00
Cigarettes, of Havanna tobacco, enclosed in paper or maize leaf (specific duty).....Kilog.	2.00	" 1.50
Do. of tobacco of other qualities (specific duty)..... "	2.00	" 1.00
Roman or Portland cement, gross weight..... "	0.02	15 p.c. *ad val.*
Ribbons:		
Of cotton, plain or twilled, including pasteboard or paper wrapper.....Kilog.	1.50	25 p.c. *ad val.*
Of cotton, colored, plain, or worked, for suspenders and cloak ribbons, including the wrapper.....Kilog.	2.45	"
Of cotton velvet, including wrapper..... "	4.00	"
Or linen or with cotton mixture, plain or twilled, including wrapper.....Kilog.	2.40	25 p.c. *ad val.*
Of linen or cotton, twilled or of crossed threads, for shoes, &c., including wrapper.....Kilog.	2.00	"

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Articles, etc.	Valuation. Pts. Cs.	Duty.
Ribbons:		
Of wool or mixture of cotton of one color, plain or twilled, for bordering mattresses, including wrapper.....Kilog.	2.75	"
Of wool with mixture of cotton of one or more colors, for cloaks, including wrapper.....Kilog.	3.25	"
Of wool, of one or more colors, for cloaks, including wrapper.....Kilog.	4.25	"
Of hemp, common, for furniture springs.....Kilog.	0.50	"
Sword-belts, of leather, with clasps and metallic plates, plain.....Dozen	36.00	"
Belts, of leather, varnished or not, common, for children.....Dozen	1.00	"
Belts, other kinds.....Dozen	*	"
Prunes, dried, in pasteboard boxes, jars, tins, or glasses, gross weight.....Kilog.	0.45	25 p.c. *ad val.*
Do. in barrels or cases, gross weight..... "	0.20	"
Cloves, whole, in tins or wooden boxes..... "	0.60	25 p.c. *ad val.*
Do. ground, in tins or wooden boxes..... "	0.90	"
Cocoa-nuts (such as those of Panama).....Hund.	2.00	35 p.c. *ad val.*
Fireworks, gross weight.....Kilog.	0.37	"
Glue, common, gross weight..... "	0.25	25 p.c. *ad val.*
Counterpanes or bed-coverlets of cotton point, plain.....Kilog.	1.20	"
Counterpanes or bed-coverlets of cotton, quilted..Kilog.	*	"
Do. of wool and cotton damask.....	—	"
Small carriages of basket-work, without hood, common, for children.....Each	4.00	35 p.c. *ad val.*
Do. with hood..... "	5.00	"
Do. of wood, without springs, small, common, for children.....Each	5.00	"
Do. do. medium size..... "	7.00	"
Do. superior, for children.....	*	"
Spring mattresses.....Each	12.00	"
Cuppels for laboratories.....Hundred	3.00	Free.
Coral, manufactured or not.....	*	15 p.c. *ad val.*
Cork bottle-stoppers, including the sacks in which packed.....Kilog.	0.60	"
Corks for flasks, including the sacks..... "	0.90	"
Cork in sheets..... "	0.10	"
Cords of silver thread, not gilded..... "	100.00	"
Braids or galloons, of cotton and India-rubber, including packing.....Kilog.	4.25	25 p.c. *ad val.*
Do. of silk and India-rubber, including packing..... "	10.00	"
Leather bands for machinery, in cases, gross weight "	1.50	"
Do. lined with coarse cloth, gross weight..... "	2.00	"
Corsets:		
Of cotton, common.....Dozen	6.00	35 p.c. *ad val.*
Of cotton or with mixture of linen, with ribs of whalebone or steel, common.....Dozen	16.00	"
Do. do. fine, without fancy lace..... "	24.00	"
All other kinds.....	*	"
Window curtains.....	*	"
Cotton duck or Marseilles, common, for vests, up to 65 centimetres wide.....Metre	0.12	25 p.c. *ad val.*
Do. half-quilted, up to 70 centimetres wide..... "	0.30	"
Do. quilted or piqué, for vests, up to 70 centimetres wide.....Metre	0.50	"
Do. superior quality, for vests, up to 70 centimetres wide	0.80	"
Crape, of wool, from 50 to 60 centimetres wide.....Metres	0.25	"
Truffles, including the bottles.....Kilog.	1.50	35 p.c. *ad val.*
Hair:		
Animal.....Kilog.	0.33	25 p.c. *ad val.*
Vegetable..... "	0.10	"

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ARTICLES, ETC.	VALUATION. Fr. Cs.	DUTY.
Woven, for upholstering, plain, of one color, up to 70 centimetres wide.....Metre	0.60	25 p.c. *ad val.*
Do. do. made up, of one or more colors..... "	0.85	"
Earthen crucibles, up to 15 centimetres high.....Dozen	0.20	Free.
Crucibles of chalk or plumbago.....Kilog.	0.20	"
Glassware:		
Gazogenes.....Kilog.	0.55	25 p.c. *ad val.*
Bottles of common glass for liquors and other drinks, ...Kilog.	0.04	15 p.c. *ad val.*
Cups and testing apparatus of crystal, gross weight, ...Kilog.	1.10	25 p.c. *ad val.*
Demijohns of glass up to 19 litres capacity.....Each	0.20	"
Glass globes for lamps, gross weight .....Kilog.	0.20	"
Globes of common cut crystal for lamps, gross weight, ...Kilog.	0.35	"
Lanterns of crystal or glass..... "	0.30	25 p.c. *ad val.*
Glass vials for medicine, gross weight, ...Kilog, from 0.14 to	0.22	25 p.c. *ad val.*
Small flasks or tubes of glass or crystal for homeopathy with or without cork stoppers, including boxes of cardboard and paper wrappers.....Kilog.	14.00	"
Drops of crystal or glass for lamps, including boxes, etc.....Kilog.	1.50	"
Glass chimneys for lamps..... "	0.10	"
Glass or crystal tubes for steam engines, gross weight, ...Kilog.	0.70	"
Ewers, sugar basins, chandeliers, oil-flasks, pocket flasks, glass plates, butter dishes, etc., of fine crystal, ...Kilog.	0.70	25 p.c. *ad val.*
Articles of crystal, fine, not otherwise distinguished.....	*	"
Glasses, plain, not colored, common, up to 4 millimetres in thickness.....Kilog.	0.06	25 p.c. *ad val.*
Do. exceeding 4 millimetres in thickness.....	*	35 p.c. *ad val.*
Glasses, plain, colored, very fine, ribbed or unglazed, ...Kilog.	0.15	"
Glassware, not otherwise distinguished.....	—	25 p.c. *ad val.*
Pulley-blocks, single, of wood.....Centim.	0.08	15 p.c. *ad val.*
Paintings.....	*	35 p.c. *ad val.*
Cords of cat-gut for musical instruments, including the paper wrapper.....Kilog.	12.00	"
Hides and skins:		
Ox and cow hides, dried or salted.....Each	4.00	Free.
Goat skins.....Dozen	4.00	25 p.c. *ad val.*
Seal: one hair..... "	7.00	"
" two hairs..... "	12.00	"
Otter.....Each	10.00	"
Wash leather.....Kilog.	3.00	"
Sheep skins.....Dozen	3.00	"
Hog skins.....Kilog	2.00	"
Patent leather..... "	3.00	"
Morocco.....Kilog. from 2.50 to	5.00	"
Sole leather.....Each	4.00	"
"Chaly," a tissue of wool and silk, plain or made up, from 62 to 76 centimetres wide.....Metre	0.42	"
Chancaca, common raw sugar, in cakes, gross weight, ...Quintal	5.70	35 p.c. *ad val.*
Do. in small cakes.....Kilog	0.10	"
Meat, dried and salted, gross weight..... "	0.25	25 "
Epaulettes of silver thread, with or without gilding, for uniforms.....Pair	30.00	15 p.c. *ad val.*
Epaulettes of copper thread, gilt or silvered for uniforms, ...Pair	12.00	25 p.c. *ad val.*
Chocolate, in paste or powder, and cacao powder, gross weight.....Kilog.	0.40	35 p.c. *ad val.*

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ARTICLES, ETC.	VALUATION. Ps. Cs.	DUTY.
Coleta, a lining material of linen or mixture of cotton, for clothing, including the packing paper.....Kilog.	1.70	25 p.c. *ad val.*
Do. of cotton, of one color, plain or twilled, for lining garments, including packing paper.....Kilog.	1.10	"
Fecula, in tins or packets, including receptacle .....Kilog.	0.20	"
Damask:		
Of cotton, colored, for bed coverlets, 3 centavos per centimetre of width.....Metre	—	"
Of wool, with mixture of cotton, common, 4 centavos per centimetre.....Metre	—	"
Similar to preceding, superior, 6 centavos per centimetre.....Metre	—	"
Of wool, common, 5 centavos per centimetre.....Metre	—	"
Of wool and of silk, with mixture of cotton, for upholstering furniture, 1.4 centavos per centimetre, ...Metre	—	"
Dates, including the packages.....Kilog.	0.40	35 p.c. *ad val.*
Thimbles: of bone.....Dozen	0.35	25 p.c. *ad val.*
" of mother of pearl and ivory..... "	1.25	"
Aprons, waterproof, with cotton or woollen borders, ...Dozen	6.00	35 p.c. *ad val.*
Do. with border of silk..... "	8.00	"
Peaches, dried..... Kilog.	0.20	"
Filters of faience, stone or composition, common, not exceeding 25 litres in capacity.....Each	5.00	15 p.c. *ad val.*
Drawings or models for framing, painted upon paper, ... Kilog.	7.00	25 p.c. *ad val.*
Sword-knots of leather, varnished or not..... Dozen	3.00	"
Sword-knots of silk, with silver thread, gilt or not.. "	18.00	"
Drills or ticking of linen, or with mixture of cotton, plain or twilled, very common, net weight... .....Kilog.	0.90	"
Do. common, net weight..... Kilog. from 1.15 to	1.35	"
Do. superior.....	*	"
Staves finished for barrels, up to 75 centimetres long and not exceeding 20 millimetres in thickness.....Hundred	3.00	15 p.c. *ad val.*
Do. not finished, up to 75 centimetres long and not exceeding 20 millimetres in thickness.....Hundred	3.00	Free.
Do. finished, for quarter casks and pipes, not exceeding 32 millimetres in thickness..... Hundred	20.00	15 p.c. *ad val.*
Do. not finished..... "	5.00	Free.
Sweetmeats.....Hundred from 0.40 to	0.65	35 p.c. *ad val.*
Lastings, called "durables" of wool with mixture of cotton, plain or twilled, of one color, for garments, up to 70 centimetres wide..... Metre	0.30	25 p.c. *ad val.*
Do. of wool, of one color, plain or twilled, for garments, up to 70 centimetres wide.....Metre	0.40	"
Do. superior.....	*	"
Elastics for shoes, including paper wrapper..... Kilog.	4.00	"
Lace:		
Of cotton, common, up to 25 millimetres wide .....Hectom.	1.25	35 p.c. *ad val.*
Do. up to 50 millimetres wide..... "	2.00	"
Do. up to 75 millimetres wide..... "	3.00	"
Of cotton, superior, up to 25 millimetres wide.....Metre	0.14	"
Do. up to 50 millimetres..... "	0.12	"
Do. up to 75 millimetres..... "	0.18	"
Of cotton, white, called guipure or crochet, up to 25 millimetres wide.....Hectom.	2.50	"
Do. up to 50 millimetres..... "	5.00	"
Do. up to 75 millimetres..... "	10.00	"
Of cotton, colored, such as guipure or crochet, are valued similarly to the preceding, with 10 per cent. additional.....	—	"
Thick, of linen, common, up to 5 centimetres wide .....Metre	0.06	"

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ARTICLES, ETC.		VALUATION.	DUTY.
		Ps. Cs.	
Lace:			
Do. up to 10 centimetres wide	Metre	0.16	35 p.c. *ad val.*
Do. superior	"	*	"
Oil-cloth, double for flooring, gross weight	Kilog.	0.30	"
Oil-cloth, with or without edging, for table covers, gross weight	Kilog.	0.45	"
Vegetables, preserved in water or vinegar, in pots or glasses, gross weight	Kilog.	0.20	"
Vegetables, preserved in salt or vinegar, in barrels, gross weight	Kilog.	0.10	"
Strings for musical instruments, including the packing paper	Kilog.	8.00	"
Brooms, common, with or without handles	Dozen	2.50	"
Do. of twigs, with or without handles	"	0.75	"
Floor brushes of hair, with or without handles	"	3.50	"
Do. of vegetable fibre	"	2.20	"
Small mirrors, common, up to 51 centimetres long, including the frame	Doz. from 0.30 to	30.00	25 p.c. *ad val.*
Mirrors of better quality, quadrilateral in form, with wooden frame, gilt or painted:			
From 0 m. 1,734 to 0 m. 8,000 in. surface			
from 5.00 to	Each	26.00	"
From 0 m. 8,001 to 3 m. 4,949 in surface	"	228.00	35 p.c. *ad val.*
Do. oval or elliptical, with wooden frame, gilt or painted		*	"
Wooden levers	Dozen	4.00	Free
Spermaceti, not refined	Kilog.	0.80	25 p.c. *ad val.*
Do. refined	"	1.25	"
Spirits of wine (specific duty)	Litre	0.80	Litre 0.50
Wooden pegs for shoes	"	0.10	25 p.c. *ad val.*
Statues		*	35 "
Stearine in paste	Kilog.	0.40	25 "
Chinese floor mats, gross weight	"	0.25	"
Cloth of cotton or linen for embroidering	"	1.70	"
Tow for caulking ships	"	0.13	Free
Cases or empty boxes, common and large, for chains, watches, ornaments, etc	Dozen	8.00	35 p.c. *ad val.*
Do. do. fine	"	15.00	"
Do. common, small, for earrings, brooches, studs, etc	Dozen	4.00	"
Do. do. superior	"	8.00	"
Meat extract, gross weight	Kilog.	1.50	25 p.c. *ad val.*
Sashes, common, of wool or mixture of cotton, of one or of one or more colors, including paper wrapper	Kilog.	2.50	"
Woollen felt, tarred, for ships	"	0.26	Free
Do. do. for roofing		*	25 p.c. *ad val.*
Hair felt, not tarred, for boilers	Kilog.	0.26	"
Mats of hemp, from 40 centimetres wide, and up to 90 centimetres long	Dozen	24.00	35 p.c. *ad val.*
Mats of esparto, from 40 centimetres wide, and up to 120 centimetres long	Dozen	12.00	"
Mats of esparto, with band of wool, short, from 40 centimetres wide, up to 120 centimetres long	Dozen	20.00	"
Manila hemp, raw	Kilog.	0.15	Free
Vermicelli, gross weight	"	0.16	25 p.c. *ad val.*
Hempen fibre	"	0.15	"
Flower and garden pots		*	35 p.c. *ad val.*
Flowers and plants, artificial		*	"
Foot-rugs		*	"
Match-boxes of leather, common	Dozen	1.50	25 p.c. *ad val.*
Do. of papier-maché, with or without incrustations	Dozen	1.25	"
Do. of Russian leather, plain	"	12.00	"
Do. do. figured	"	16.00	"
Do. of mother-of-pearl or ivory, common	"	12.00	"

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ARTICLES, ETC.	VALUATION. Ps. Cs.	DUTY.
Match-boxes, fine.....Dozen	20.00	25 p.c. *ad val*
Matches:		
Of wood, in paper boxes, including the weight of the wooden boxes or tins.....Kilog.	0.20	35 p.c. *ad val.*
Do. in boxes of thin wood or pasteboard, including case, etc.....Kilog.	0.20	"
Wax, in cardboard boxes or tins, including case, etc. .....Kilog.	0.60	35 p.c. *ad val.*
Other kinds.....	*	"
Photographs on cards.....Kilog.	4.50	"
Do. for stereoscopes..... "	8.00	"
Flannel:		
Of cotton, of one or more colors, including paper wrapper.....Kilog.	1.00	25 p.c. *ad val.*
Of cotton, bleached or not, including paper wrapper .....Kilog.	0.90	"
Of wool, with mixture of cotton, of one or more colors, plain or twilled, including paper wrapper.....Kilog.	1.85	"
Of wool, of one or more colors, plain or twilled, including paper wrapper.....Kilog.	3.25	"
Blankets:		
Of cotton, with border, net weight.....Kilog.	0.70	"
Do. hemmed with silk..... "	0.80	"
Of wool, with mixture of cotton or jute, very common, net weight.....Kilog.	0.65	"
Do. do. common, net weight..... "	0.90	"
Do. superior, net weight..... "	1.85	"
Of wool, common, net weight..... "	1.75	"
Do. superior, net weight..... "	2.75	"
Of vicuña wool, cashmere, etc.....	*	"
Haricot beans.....Kilog.	0.04	"
Fruits, in water, brandy or sirup, gross weight.....Kilog.	0.30	35 p.c. *ad val.*
Do. fresh..... "	Free	Free
Cases, of leather, for fire-arms.....Dozen	20.00	35 p.c. *ad val.*
Do. of varnished or chamois leather, with or without strap, for revolvers.....Dozen	12.00	"
Do. of straw, for bottles.....Kilog.	0.04	25 p.c. *ad val.*
Galloons or fringes of copper, gilt or silvered, very common, including cases, etc.....Kilog.	2.50	35 p.c. *ad val.*
Do. of copper, gilt or silvered, cotton twist, common, including cases, etc.....Kilog.	6.00	"
Do. do. superior, including cases, etc..... "	13.00	"
Do. of copper, gilt or silvered, silk twist, including cases .....Kilog.	20.00	"
Do. small galloons, laces or embroideries, gilt or silvered, fine, including cases, etc.....Kilog.	100.00	"
Do. other kinds.....	*	"
Sea buscuits, common.....Quintal	6.50	"
Buscuits, fine, without sugar or butter, exceeding 8 centimetres in diameter.....Quintal	8.70	"
Do. do. not exceeding 8 centimetres in diameter.....Kilog.	0.85	"
Do. of every kind, prepared with sugar or butter, including jars, paper, etc.....Kilog.	0.60	"
Gauze, of cotton, white, common, braided or damasked, up to 100 centimetres wide.....Metre from 0.08 to	0.12	25 p.c. *ad val.*
Do. fine.....Metre	0.16	"
Do. of cotton, colored and embroidered.....	*	"
Waterproof material, of cotton and India-rubber, for children's wraps, etc., 1 centavo per centimetre of width.....	—	"
Cretonne or platilla, of linen or with mixture of cotton, up to 25 threads in warp and woof, and 75 centimetres wide.....Metre	0.12	25 p.c. *ad val.*
Do. up to 30 centimetres wide..... "	0.15	"
Do. up to 35 " " ..... "	0.17	"
Do. up to 40 " " ..... "	0.20	"

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ARTICLES, ETC.	VALUATION. Ps. Cs.	DUTY.
Linen cloth, such as bretagne, holland, Irish, etc., including paper package.....Kilog.	4.00	35 p.c. *ad val.*
Linen goods, or with mixture of cotton, for lining garments, net weight.....Kilog.	1.00	25 p.c. *ad val.*
Cotton tissues, white, plain, not exceeding 20 threads in the warp, net weight.....Kilog.	1.00	"
Do. white, plain, thick, such as cretonne and quilting, net weight.....Kilog.	0.85	"
Cotton tissues, white, plain, not exceeding 20 threads in the warp, net weight.....Kilog.	1.50	"
Do. white, worked or damasked, such as brilliantines, net weight.....Kilog.	1.50	"
Do. do. colored, net weight..... "	1.60	"
Do. unbleached, plain, such as thick calicoes and osnaburghs, strong, intended specially for making sacks, and not exceeding 16 threads in the warp and woof, gross weight.....Kilog.	0.50	15 p.c. *ad val.*
Tissues of hemp and jute, such as osnaburghs for sacks, gross weight.....Kilog.	0.35	"
Cotton tissue, such as calico, unbleached, plain, simple, without dye or distinction of quality, net weight.....Kilog.	0.75	25 p.c. *ad val.*
Cotton tissue, unbleached, twilled, such as calicoes, net weight.....Kilog.	0.85	"
Cotton tissue, bleached, net weight..... "	0.90	"
Cotton tissue, such as ticking, blue cloth, rayadillo, and similar tissues, net weight..... Kilog.	0.80	"
Linen cloth, or with mixture of cotton, such as ticking, net weight.....Kilog.	1.20	"
Cotton cloth, especially for pantaloons, plain, twilled or quilted.....Kilog.	0.95	"
Cotton and woollen cloth, such as "mixed," for pantaloons, twilled, quilted and faced.....Kilog.	1.50	"
Cotton cloth, such as "Oxfords," net weight..... "	0.90	"
Cotton cloth, worked or printed, for book-binders, 2 centavos per centimetre wide.....Metre	0.25	"
Cotton cloth, for shirtings, up to 75 centimetres wide.....Metre	0.25	"
Do. exceeding 75 centimetres but less than 1 m 50 in width.....Metre	0.50	"
Woollen cloth, or with a mixture of cotton, common, up to 75 centimetres wide.....Metre	0.45	"
Do. exceeding 75 centimetres, but less than 1 m 50 wide.....Metre	0.90	"
Do. superior, up to 75 centimetres wide..... "	0.75	"
Do. do. exceeding 75 centimetres, but less than 1 m 50 wide.....Metre	1.50	"
Cotton cloth, for dresses, such as zephyr, net weight.....Kilog.	1.50	"
Woollen cloth, such as camella, of one color, common, 4 centavos per centimetre wide.....	—	"
Woollen and silk cloth, such as japonaise and cashmeres, up to 60 centimetres wide.....Metre	0.35	"
Cloths for women's dresses, not otherwise distinguished	*	"
Cotton cloth, for bath towels and sheets.....Kilog.	1.00	"
Frieze, of cotton and wool, colored, with or without tassels, such as "ritos".....Kilog.	1.15	"
Do. of wool, coarse, such as "ritos"..... "	1.50	"
Do. of wool, three-fold, up to 95 centimetres wide...Metre	1.00	"
Do. of wool and cotton, three-fold, up to 95 centimetres wide.....Metre	0.80	"
Do. of wool, two-fold, up to 95 centimetres wide..... "	0.70	"
Do. of wool, and mixture of cotton or hemp, up to 95 centimetres wide.....Metre	0.50	"

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Articles, Etc.	Valuation.	Duty.
	Ps. Cs.	
Do. of hemp or jute, with mixture of cotton, up to 50 centimetres wide.....Metre	0.15	25 p.c. *ad val*
Do. up to 95 centimetres wide..... "	0.25	"
Do. of hemp and jute, up to 95 centimetres wide..... "	0.20	"
Do. better quality.....	*	"
Gin in flasks or ordinary bottles (specific duty).....Dozen	4.00	Dozen 3.00
Do. in other receptacles (specific duty).....Litre	0.25	Litre 0.25
Geographical and astronomical globes.....	Free	Free
Glucose, common, solid or liquid, gross weight.....Kilog.	0.12	25 p.c. *ad val.*
India-rubber, raw..... "	0.18	"
Do. manufactured in sticks, packets or sheets, with or without cloth, gross weight:		
In wooden boxes.....Kilog.	1.00	"
In packing cloth..... "	1.25	"
Do. manufactured as erasers, etc..... "	2.00	"
Do. do. fitted with wood..... "	4.00	"
Bonnets of cotton, simple, white or colored.....Dozen	1.00	"
Do. other kinds.....	*	"
Grenadine:		
Of cotton, common, from 55 to 65 centimetres wide .....Metre	0.13	"
Do. medium quality..... "	0.17	"
Do. fine..... "	0.22	"
Of cotton and silk, common, from 55 to 65 centimetres wide.....Metre	0.20	"
Do. medium quality..... "	0.25	"
Do. fine..... "	0.35	"
Of wool and silk, common, from 55 to 65 centimetres wide.....Metre	0.25	"
Grenadine:		
Of wool and silk, medium quality.....Metre	0.35	25 p.c. *ad val.*
Do. fine..... "	0.45	"
Animal fat, common, in tins, gross weight.....Kilog.	0.25	"
Do. in wooden boxes, gross weight..... "	0.18	"
Pine or vegetable resin, gross weight..... "	0.06	"
Fat used in the manufacture of soap..... "	0.12	"
Guano.....	Free	Free
Gloves:		
Of cotton, common,.....Dozen	1.00	35 p.c. *ad val*
Of Scotch plaid, common ..... "	2.00	"
Do. superior ..... "	4.00	"
Chamois or kid up to 31 centimetres long..... "	9.00	"
Do. above 31 dentimetres..... "	15.00	"
Of wool, short or common..... "	2.50	"
Do. superior..... "	3.50	"
Of wool, short, fine.....	*	"
Of wool point, common, or with mixture of cotton .....Kilog.	6.00	"
Of wool point, common, or with mixture of cotton, superior to preceding class.....Kilog.	8.00	"
Miners' fuses, gross weight..... "	0.28	Free
Cherries, dried, in wooden boxes, gross weight..... "	0.15	35 p.c. *ad val.*
Wheat flour.....	Free	Free
Flour of oats, rye and maize, in tins or packets, including case.....Kilog.	0.20	25 p.c. *ad val*
Figs, dried, in cases, including the same..... "	0.22	35 do
Cotton yarn:		
In clews or skeins, for sewing or weaving, including the boxes of cardboard or paper and paper wrappers .....Kilog.	1.50	25 do
Wound on cardboard, clews or skeins, for embroidering and marking.....Kilog.	2.25	do
For sewing up to 6 threads, wound on bobbins, up to 92 metres..... Gross.	2.25	do
Do up to 184 metres..... "	5.00	do

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ARTICLES, ETC.	VALUATION.	DUTY.
	Ps. Cs.	
Cotton yarn:		
Do up to 276 metres.....Gross	7.50	do
For sewing on cardboard, up to 50 metres..... "	0.40	do
Cotton waste, white or colored, for cleaning machinery, ...Kilog.	0.20	do
Hemp or jute yarn, up to 3 threads, for sewing, gross weight.....Kilog.	0.40	do
Hemp, jute, linen or cotton yarn, for packing, including paper wrapper.....Kilog.	0.80	do
Pack-thread of cotton, for sewing sacks, including paper wrapper.....Kilog.	0.70	do
Linen yarn, white and colored, ordinary, for tailors or shoemakers, including paper wrappers.....Kilog.	1.40	do
Do do in clews or skeins, fine, for sewing, including paper package.....Kilog.	3.25	do
Do on bobbins.....	*	do
Woollen yarn, common, prepared for weaving, including the inside packing paper.....Kilog.	{from 2.00 to 300}	do
Do superior..... "	5.50	do
Yarn of goat's hair, or imitation of the same, prepared for weaving and embroidering.....Kilog.	5.00	do
Paper leaves for florists, per leaf..... Gross.	0.08	do
Cloth leaves for florists, per leaf..... "	0.20	do
Do do waxed..... "	0.30	do
Musical instruments, etc.:		
Harmoniums of palisander, mahogany, etc., of 1 register and 4 octaves.....Each.	35.00	35 do
Do up to 5 register and 5 octaves..... "	50.00	do
Do " 11 " " ..... "	85.00	do
Do " 14 " " ..... "	125.00	do
Do " 18 " " ..... "	150.00	do
Do " 21 " " ..... "	225.00	do
Do of more than 21 register.....	*	do
Do of common wood.....	*	do
Pianos, pianofortes, grand, of any wood, mounted or not, complete or not, with or without stool and cloth, up to 1 m. 90 long.....Each.	350.00	do
Pianos more than 1 m. 90 long..... "	600.00	do
Cottage pianos of any wood, mounted or not, complete or not, with or without stool and cloth, up to 1 m. 55 high.....Each.	225.00	do
Do more than 1 m. 55 high..... "	400.00	do
Pianos of other kinds.....	*	do
Sacks of morocco, chamois, or other thin leather for musical instruments.....Each.	2.00	25 do
Musical instruments, etc:		
Sacks of common leather, for musical instruments .....Each.	3.00	25 p.c. *ad val.*
Of any other kind.....	—	35 p.c. *ad val.*
Surgical, mathematical, and other scientific instruments .....Each.	*	Free.
Washing soap, gross weight.....Kilog.	0.12	25 p.c. *ad val.*
Hams, including wrapper..... "	0.40	35 p.c. *ad val.*
Sirups of every kind (with the exception of medicinal), in bottles of glass of ordinary dimensions.....Dozen.	6.00	25 p.c. *ad val.*
Cordage, white or tarred, of hemp or esparto, more than 24 millimetres in circumference, gross weight....Kilog.	0.30	"
Do. old or useless, white or tarred, of hemp or esparto, ...Kilog.	0.05	Free.
Games of every kind..... "	—	35 p.c. *ad val.*
Counters of mother-of-pearl, bone or ivory, for playing cards.....Hundred.	2.00	"
Lime juice, in barrels.....Litre.	0.20	25 p.c. *ad val.*
Do. in common bottles.....Dozen.	3.00	"
Strawberry, raspberry, and cherry sirup in barrels...Litre.	0.40	"
Bamboo, unworked.....Kilog.	0.15	Free.

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Articles, etc.		Valuation. Pts. Cs.	Duty.
Do. prepared for furniture	Kilog.	0.55	25 p.c. *ad val*
Sealing-wax in sticks, including pasteboard and paper wrapper	Kilog.	1.40	"
Do. in other forms, common, for bottles, including pasteboard, etc.	Kilog.	0.80	"
Square tiles or bricks of jasper or marble, polished	Metre.	1.40	35 p.c. *ad val.*
Do. prepared for foundry furnaces	Hundred.	3.00	15 p.c. *ad val.*
Bath bricks	Kilog.	0.04	25 p.c. *ad val.*
Building bricks, common	Hundred.	1.25	"
Wool:			
Sheep's, raw, gross weight	Kilog.	0.16	Free.
Do. scoured, gross weight	"	0.32	"
Vicuña, gross weight	"	0.55	"
Vegetable, called silk "saibo"	"	0.25	25 p.c. *ad val.*
Bunting, of wool, for banners and flags, light, plain, up to 50 centimetres wide	Metre.	0.14	"
Do. for lining, with mixture of cotton, plain and twilled, up to 50 centimetres wide	Metre.	0.16	"
Lobsters, in water, in tins, jars or glasses, gross weight	Kilog.	0.25	"
Wooden pencils, ordinary size, for writing, common,	Gross.	0.80	"
Do. fine	"	3.00	"
Do. for carpenters	"	2.00	15 p.c. *ad val.*
Slate pencils	Thousand.	0.75	Free.
Preserved milk in tins	Kilog.	0.40	25 p.c. *ad val.*
Vegetables, dried, in tins, jars, or glasses, including the same	Kilog.	0.30	"
Ox tongues, dried or salted	Kilog.	0.80	25 p.c. *ad val.*
Lentils	"	0.05	"
Yeast or baking powder, in boxes, packets or flasks, gross weight	Kilog.	0.40	"
Cigarette-paper books, including paper wrapper	"	1.50	35 p.c. *ad val.*
Books containing leaves of common metal for gilding or silvering, up to 25 leaves per book, and up to 65 centimers square in the leaf	Gross.	3.00	25 p.c. *ad val.*
Do. of gold or silver, for gilding or silvering, up to 25 leaves per book, and up to 55 centimetres square in the leaf	Each.	0.30	15 p.c. *ad val.*
Do. printed, with backs of tortoise-shell, mother-of-pearl, ivory, or imitations of the same, and ornamented with gold, silver and metal, gilded or silvered		*	35 p.c. *ad val.*
Do. plain or ruled, for writing, common, kilog. from 0.05 to		1.50	"
Do. plain for letter-press copying	Kilog.	0.80	"
Liquors, sweet, (specific duty)	Dozen.	10.00	Doz. "
Garters of cotton, with or without India-rubber, common, for women or children	Dozen.	0.40	25 p.c. *ad val.*
Do. better quality		*	"
Glass paper	Kilog.	0.20	15 p.c. *ad val.*
Emery, or glass cloth	"	0.40	"
Lawn:			
Of cotton, white, plain, up to 20 threads in warp and woof, and 1 m. 12 wide	Metre.	0.06	25 p.c. *ad val.*
Do. up to 30 threads	"	0.12	"
Do. up to 40 threads	"	0.20	"
Do. above 40 threads	"	0.30	"
Of cotton, colored, plain		—	"
Sailcloth:			
Of linen and cotton, for sails of from Nos. 1 to 7, gross weight	Kilog.	0.60	15 p.c. *ad val.*
Do. common, bleached, above No. 7, gross weight,	Kilog.	0.70	25 p.c. *ad val.*
Of hemp or jute for sails, gross weight	"	0.60	"

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ARTICLES, ETC.		VALUATION, Pts. Cs.	DUTY.
Sailcloth:			
Of linen, white or colored, for pantaloons	Kilog	*	"
Faience, common, white and colored, common, in baskets, cases or other packages, gross weight	Kilog.	0.10	"
Do. white, colored, or gilded, fine, in cases, barrels, or casks	Kilog.	0.20	"
Glass, plate, polished and varnished:			
From 0 m. 0,726 to 0 m. 8,000 surface	Each from 0.60 to	18.00	"
From 0 m. 8,001 to 4 m. 1,500 surface	Each from 20.00 to	150.00	35 p.c. *ad val.*
Unpolished for shop windows, less than 4 millimetres thick, pay half the preceding duties		—	—
Hops, including metal and wooden boxes	Kilog.	0.50	25 p.c. *ad val.*
Wood:			
For cabinet makers, not worked, with the exception of cedar	Decim.	0.03	Free.
Do. of cedar	"	0.02	"
Common, not planed, for building, fir, oak, etc., in planks, beams, etc., 25 millimetres thick	Sq. Metre.	0.35	15 p.c. *ad val.*
Common, planed or dovetailed, or ready for building, fir, oak, etc., in planks, beams, etc., 25 millimetres thick	Sq. Metre.	0.40	25 p.c. *ad val.*
Maize		*	Free.
Penholders:			
Of metal or wood, very common	Gross.	0.40	25 p.c. *ad val.*
Do. medium quality	"	0.80	"
Do. fine	"	2.00	"
Of bone, medium quality	"	3.00	"
Of mother-of-pearl or ivory	Dozen.	1.50	"
Parasol handles:			
Of wood, common	"	0.50	"
Do. medium quality	"	1.00	"
Umbrella handles:			
Of wood, common	"	1.00	"
Do. medium quality	"	1.50	"
Handles for brooms, painted or not, gross weight	Kilog.	0.15	35 p.c. *ad val.*
Do. for stronger brooms	"	0.15	25 p.c. *ad val.*
Muffs of all kinds, for women		*	35 p.c. *ad val.*
Travelling rugs:			
Of wool and cotton, common	Each.	2.00	25 p.c. *ad val.*
Do. of medium quality	"	3.00	"
Do. fine	"	5.50	"
Of cotton, common, for men	Dozen.	9.00	"
Do. with borders of wool, common, for men	"	12.00	"
Do. do. medium quality	"	15.00	"
Do. fine	"	18.00	"
Of wool and cotton, common, for men	"	18.00	"
Do. medium quality	"	24.00	"
Do. fine	"	30.00	"
Of wool, common, for men	Each.	22.00	"
Do. medium quality	"	36.00	"
Do. fine	"	48.00	"
Of vicuña and other superior kinds of wool		*	"
Similar to preceding kinds, with embroidery, similar valuations		—	35 p.c. *ad val.*
Butter in tins, including the coverings	Kilog.	0.45	"
Pork fat in tins, including the same	"	0.30	"
Do. in barrels, gross weight	"	0.22	"
Frames of wood, gilt or varnished, for pictures		*	"
Night lights in boxes, not exceeding 100 per box	Dozen.	0.30	25 p.c. *ad val.*
Marble:			
Polished, in blocks, for furniture and tombstones, up to 2 centimetres thick, per square decimetre	Decim.	0.10	35 p.c. *ad val*

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UNIVERSITY

Articles, etc.		Valuation. Ps. Cs.	Duty.
Marble:			
Not polished, in blocks, for furniture, and up to 2 centimetres thick, per square decimetre	Decim.	0.05	25 p.c. *ad val*
Polished, round, for table tops, per decimetre in diameter	Centim.	0.14	35 p.c. *ad val*
Polished, oval, for table tops	"	0.14	"
In other forms, for fountains, mausoleums, etc.		*	"
Masks	Gross	from 8.00 to 24.00	"
Mastic, prepared	Kilog.	0.08	25 p.c. *ad val*
Wicks of cotton for lamps	"	1.00	"
Do. other	"	1.25	"
Merinos and cashmeres of wool, twilled, single or double, crossed up to 16 threads, including paper wrappers and bands	Kilog.	4.00	35 p.c. *ad val*
Do. of more than 16 cross-threads, etc.	"	6.00	"
Do. of wool with mixture of cotton, twilled, single or double, including papers, etc.	Kilog.	3.00	25 p.c. *ad val*
Honey	Litre.	0.08	"
Minerals			Free.
Tissues, crocheted, common, up to 5 centimetres wide	Hectom.	1.25	25 p.c. *ad val*
Do. up to 10 centimetres wide	"	2.50	"
Models and designs for machines			Free.
Mouldings of wood for frames, furniture, etc., varnished or not, painted or gilded, gross weight	Kilog.	0.35	25 p.c. *ad val*
Do. of wood and plaster, intended to be gilded	"	0.20	"
Coins			Free
Mosaic of wood, common, per sq. metre	Metre.	5.00	35 p.c. *ad val*
Do. fine		*	do
Small pearls of metal, of all shapes	Kilog.	5.00	do
Do. of glass	"	1.10	do
Mustard, in powder, gross weight	"	0.40	25 p.c. do
Do. prepared in pots or glasses, gross weight	"	0.25	do
Furniture of all kinds		—	35 p.c. do
Designs for teaching writing and drawing	Kilog.	from 1.25 to 2.00	Free
Dolls of every kind, trimmed or not		—	35 p.c. *ad val*
Muslins:			
Cambric or holland, of cotton, printed or dyed, up to 25 threads in the warp and woof, and up to 85 centimetres wide	Metre.	0.09	25 p.c. do
Do. up to 34 threads in the warp and woof	"	0.12	do
Do. up to 42 threads	"	0.14	do
Do. up to 52 threads	"	0.18	do
Of wool with mixture of cotton, plain, colored, up to 24 threads in the warp and woof, and 65 centimetres wide	Metre.	0.10	do
Do. up to 26 threads in the warp and woof	"	0.12	do
Do. up to 28 threads	"	0.14	do
Of wool, with mixture of cotton, plain, colored, up to 25 threads in the warp and woof, and 85 centimetres wide	Metre.	0.14	do
Do. up to 28 threads in the warp and woof	Metre.	0.16	do
Of wool, with mixture of cotton, colored, twilled or open-worked, up to 65 centimetres wide	Metre.	0.14	do
Do. up to 85 centimetres	"	0.17	do
Entirely of wool, plain, common, with one or two colors, up to 65 centimetres wide	Metre.	0.25	do
Do. with three or more colors	"	0.30	do
Entirely of wool, twilled, with one or more colors		*	do
Music, printed or manuscript	Kilog.	1.20	do.
Moss, in packets or loose, including paper wrapper,	Kilog.	0.50	do
Sealing-wax sticks, in cardboard boxes or in tins	"	0.35	do
Holland, batiste and cambric of linen, up to 90 centimetres wide	Metre.	0.30	35 p.c. do

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ARTICLES, ETC.		VALUATION. Ps. Ca.	DUTY.	
Accounts, invoices, price lists or receipts, printed upon cotton paper, loose or bound up, including cardboard boxes or paper wrappers	Kilog.	1.20	35 p.c.	*ad val*
Do. printed upon linen paper	"	2.50	do	
Strips of saffron, apple or pear, sun-dried, with or without rind, gross weight	Kilog.	0.10	do	
"Organdi," a tissue of cotton, with plain stripes, white or colored, up to 27 threads in the warp and woof, and up to 82 centimetres wide	Metre.	0.12	25	do
Do up to 33 threads in the warp and woof, and up to 82 centimetres wide	Metre.	0.16	do	
Gold:				
In powder or paste	Gram.	0.65	Free	
In plates, for dentists	"	1.00	15 p.c.	*ad val*
Manufactured as plate	"	*	35	do
In lumps, unwrought	"	0.44	Free	
Oysters in water, in tins, pots or glasses, gross weight	Kilog.	0.25	35 p.c.	*ad val*
Dye-wood, in logs	"	0.05	Free	
Do in powder	"	0.06	do	
Wood for ships' masts	"	*	do	
Frieze for carpets, common, thick, with colored designs, printed, up to 100 centimetres wide	Metre.	0.50	25 p.c.	*ad val*
Do up to 130 centimetres wide	"	0.60	do	
Cloth for billiard tables	"	3.50	do	
Woollen cloth, common, known as "Star," of any color, up to 140 centimetres wide	Metre.	0.60	do	
Woollen or satin-woollen cloth, with mixture of cotton, common, for surtouts, pantaloons or paletots	Metre.	0.80	do	
Do. fine	"	1.20	do	
Woollen or satin-woollen cloth, common, from 127 to 157 centimetres wide, for surtouts and pantaloons	Metre.	2.00	do	
Do fine	"	3.50	do	
Woollen cloth, known as "castor," etc., from 127 to 157 centimetres wide	Metre.	2.50	do	
Do superior, for paletots	"	3.50	do	
Do very superior, known as "Montagnac,"	"	5.00	do	
Towels:				
Of cotton, craped and velveted, including paper wrappers	Kilog.	1.25	do	
Do common	"	1.00	do	
Of linen damask or with mixture of cotton, including paper wrapper	Kilog.	3.00	do	
Of linen with Italian fringe		—	do	
Handkerchiefs:				
Pocket, of cotton, with or without hem or embroidery up to 30 threads in the warp and woof, gross weight	Kilog.	1.50	do	
Do above 30 threads in the warp and woof, gross weight	Kilog.	2.20	do	
Of cotton, imitating cambric, or silk handkerchiefs, any quality, gross weight	Kilog.	2.20	do	
Of linen, with cotton mixture, common, not hemmed,	Dozen.	1.50	do	
Do hemmed	"	1.50	35	do
Do better quality, not hemmed	"	2.50	25	do
Do hemmed	"	2.50	35	do
Of linen, with mixture of cotton, fine, not hemmed	Dozen.	5.00	25	do
Do hemmed	"	5.00	35	do
Of holland, batiste, linen, fine, plain and with embroidered letters or colored borders, printed, without fine lace	Dozen.	7.00	do	
Do embroidered or open-worked, without fine lace	Dozen.	24.00	do	

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Articles, etc.		Valuation. Pts. Cs.	Duty.	
Handkerchiefs:				
Of holland, batiste and linen, with fine lace	Dozen	*	35 p.c.	*ad val*
Do and neckerchiefs of wool, with mixture of cotton, plain or twilled, colored, striped or squared, with or without fringes of wool or cotton	Kilog.	1.50	25	do
And neckerchiefs of wool, and with mixture of cotton, damasked, black and colored	Kilog.	2.50		do
And neckerchiefs of wool, common, of thick tissue, known as "jerga"	Kilog.	2.50		do
And neckerchiefs of wool, flannel and "tartan"	"	3.75		do
Do fine and superior	"	4.75		do
And neckerchiefs of wool, thin, colored	"	5.50		do
And neckerchiefs of wool, very thin, such as muslin, camelie, barége, of one or more colors, without borders or fringes of silk	Kilog.	7.00		do
And neckerchiefs of merino and cashmere, colored print, with or without fringes, common	Kilog.	7.50		do
Do with silk stripes	"	9.00		do
And neckerchiefs of wool, such as merino and cashmere, of one color, with or without woollen fringe, up to 16 cross threads	Kilog.	5.00		do
And neckerchiefs of wool, such as merino and cashmere, of one color, with woollen fringe or imitation of the same, up to 16 cross threads	Kilog.	5.50		do
Of superior make		*		do
Small cashmere shawls of wool, called "Ternaux," fine, twilled or plain	Each	50.00	35 p.c.	*ad val*
Do imitation, common	"	6.00	26	do
Cashmere shawls of wool, called "Ternaux," fine, twilled, or plain	Each	100.00	35	do
Do imitation of the same	"	12.00	25	do
Paper:				
Packing paper, common, called "straw"	Kilog.	0.14	35	do
Or cardboard for sheathing of ships	"	0.10		Free
Of cotton, without gum, for printing, medium quality	Kilog.	0.25		do
Cigarette, of any kind, including cardboard boxes, etc.,	Kilog.	0.55	35 p.c.	*ad val*
Cigarette, of straw, tabacco, linen, or with mixture of cotton, of any kind, including cardboard boxes, etc.,	Kilog.	1.10		do
Of cotton, in bands, for telegraph machines, including paper wrapper	Kilog.	0.25		Free
Colored, for wall-papering, gilt, common	Roll	0.40	35 p.c.	*ad val*
Colored, for wall-papering, fire-gilt, medium quality	Roll	1.25		do
Colored, for wall-papering, with velveted designs	"	1.00		do
Colored, for wall-papering, velveted and gilded, common	Roll	1.50		do
Colored, for wall-papering, velveted and fire-gilt, in rolls not exceeding 56 centimetres in width, and 6 m. 68 to 8 m. 36 in length	Roll	2.50		do
Of any other kind		—	25	do
Paraffine in paste	Kilog.	0.80		do
Umbrellas:				
Of cotton, common	Dozen	6.00		do
Of wool, or with mixture of cotton, common	"	9.00		do
Do superior	"	14.00		do
Or parasols of cotton, common, the stick less than 50 centimetres long	Dozen	2.50		do
Do medium quality	"	5.00		do
Do superior		*		do
Hosiery and small wares:				
Clasps of cotton or mixture of any material, other than wool or silk, for curtains	Kilog.	2.50	35	do
Do of wool or mixture of silk or other material	Kilog	4.00		do

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ARTICLES, ETC.	VALUATION. Pr. Ct.		DUTY.
Umbrellas:			
Loops, tufts, cords, fringes, or galloons of cotton or mixture of any material other than wool or silk for furnishing, including boards, cardboard, or packing paper.....Kilog.	2.50	35	p.c. *ad val*
Do purely of wool, etc..... "	4.50		do
Do of wool with mixture of any material other than silk, etc.....Kilog.	3.50		do
Loops, tufts, cords, fringes, or galloons of wool, with mixture of silk or any other material, etc.....Kilog.	5.00	25	do
Do of cotton, with a small quantity of silk or material other than wool, etc.....Kilog.	3.50		do
Cotton cord, with core of hemp, for blinds, including boards, cardboard, or packing paper.....Kilog.	1.00		do
Do of linen or wool, including boards, etc..... "	2.50		do
Do of linen or with mixture of cotton, for corsets, including boards, etc.....Kilog.	3.50		do
Do of cotton for corsets, including boards, etc..... "	2.50		do
Cords or laces of cotton, linen, or leather, with tags of metal, for shoes, including boards, etc.....Kilog.	2.50		do
Laces and other ornaments of straw or imitation for hats, including boards, etc.....Kilog.	6.00	35	do
Loops, tassels, cords, galloons or Greek fringes, of any size, of cotton, with or without beads, for trimming dresses, including boards, etc.....Kilog.	2.50	25	do
Do of wool, with mixture of cotton, with or without beads, for trimming dresses, including boards, etc., ...Kilog.	4.50		do
Fringes of cotton for upholstering, with or without glass beads, including boards, etc.....Kilog.	3.00	35	do
Fringes of wool or with mixture of cotton, for furniture, with or without glass beads, including boards, etc.....Kilog.	4.50	35	do
Bands of wool, or with mixture of cotton, common, for embroidering wearing apparel, including boards, etc., ...Kilog.	2.50	25	do
Do of cotton, common, including boards, etc..... "	1.50		do
Raisins, in boxes, gross weight..... "	0.20	35	do
Currants, gross weight..... "	0.25		do
Razor paste, including wrapper..... "	1.65	25	do
Combs:			
Of wood, including cardboard boxes and packing paper.....Kilog.	1.50		do
Of horn, bone, rubber, or caoutchouc, including cardboard boxes, etc.....Kilog.	2.50		do
Of ivory or imitation bone ..... "	20.00	35	do
Of India-rubber, plain, round, common, for children, ...Kilog.	4.00		do
Do fine, with drawings and incrustations.....	5.00	25	do
Do imitation, for children..... "	*		do
Animal hair			Free
Balls of India-rubber, painted or not.....Kilog.	2.00	35	p.c. *ad val*
Cotton seeds	—		Free
Perfumery of every kind.....	—	35	p.c. *ad val*
Venetian blinds, without cornices or ornaments, the laths exceeding three centimetres in width, common, ...Dozen	50.00		do
Do with cornices or other ornaments, fine.....	*		do
Do other qualities.....	*		do
Areometres.....Dozen	2.00	25	do
Fish:			
Small, such as anchovies, herrings, sardines, dried, smoked, or salted, in wooden boxes, gross weight, ...Kilog.	0.17	35	do
Do in tins..... "	0.25		do

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Articles, etc.		Valuation. Ps. Cs.	Duty.
Fish:			
Large, such as cod, mackerel, etc., dried, smoked, or salted, in wooden boxes	Kilog.	0.12	35 p.c. *ad val*
Salmon, dried, smoked, or salted, in wooden boxes, gross weight	Kilog.	0.17	do
Mats:			
Guatemala or Manila, per square metre	Metre	0.20	25 do
Peruvian, white, common, per square metre	"	0.40	do
Of hemp or jute fibre, from 65 to 75 centimetres wide	Metre	0.60	do
Of cocoa fibre, from 80 to 90 centimetres wide	"	0.45	do
Stones:			
For sharpening razors, fine	Dozen	7.00	do
For sharpening common tools	Kilog.	0.14	15 do
Pumice	"	0.15	do
Sugar-mill, per pair	Pair	150.00	do
Mill, mounted, per centimetre in diameter	Centim.	0.06	do
Do, not mounted	Kilog.	0.04	do
Paving (excepting those of marble), not less than 51 millimetres thick, per square metre	Metre	2.00	25 do
Lithographic		*	15 do
Flint	Thousand	2.00	25 do
Precious and fine pearls		*	4 do
Furs prepared for ornaments or mantels		*	35 do
Chiapa pepper, aromatic, in the grain, and black pepper in the grain	Kilog.	0.22	25 do
Do in powder, including the receptacle	"	0.35	do
Pimento, common, in the shell, gross weight	"	0.10	do
Do ground in tins	"	0.30	do
Pencils for drawing and painting		*	15 do
Colors for painting of all kinds		—	25 do
Tobacco pipes:			
Of clay, common	Gross	0.60	35 do
Do medium quality	"	1.25	do
Do figured	"	1.50	do
Of wood or porcelain, small, common	"	9.00	do
Do fine		*	do
Of imitation meerschaum, common	Dozen	12.00	do
Of meerschaum, plain, small, fine	"	48.00	do
Do figured	"	72.00	do
Other qualities		*	do
Cotton, pique, with frieze, common, for children's clothes, up to 70 centimetres wide	Metre	0.18	25 do
Do medium quality	"	0.25	do
Do superior	"	0.55	do
Marline, tarred	Kilog.	0.35	do
Do of hemp or esparto, from 9 to 21 millimetres in circumference	Kilog.	0.40	do
Do of hemp, less than 9 millimetres in circumference	Kilog.	0.55	do
Slates:			
For schools, with or without frame of wood	Dozen	1.00	Free
For offices		*	25 p.c. *ad val*
Of porcelain up to 25 centimetres long	Dozen	8.00	do
Of all sizes for roofing	Thousand	25.00	do
For billiard-tables, per square metre	Square Metre	4.00	do
Exotic plants and their seeds		—	Free
Cork soles for shoes	Kilog.	0.90	25 p.c. *ad val*
Gutta-percha soles for shoes	Dozen	2.25	do
Silver, manufactured, gilt or not, as plate	Kilog.	100.00	35 do
Do in paste or lumps		*	Free
Feathers:			
Superior for hats, colored	Dozen	8.00	35 p.c. *ad val*
Common, in plumes of three feathers	"	5.00	do
Swan, superior for stuffing	Kilog.	5.00	25 do
Ostrich, natural	"	2.00	do

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Articles, etc.		Valuation. Ps. Cs.	Duty.	
Quill pens, uncut	Thousand	2.00	35 p.c.	*ad val*
Do cut	"	4.00	do	
Metal pens, for writing	Gross	0.24	do	
Tooth-picks, in small boxes	Thousand	0.80	do	
Dusters, with feathers exceeding 25 centimetres long, and of fox-tails or imitations	Dozen	6.00	do	
Gunpowder:				
Common, for mines	Kilog.	0.20	15	do
Sporting, superior, in small boxes	"	0.80	35	do
Do medium quality, in barrels	"	0.50	do	
Powders:				
For cleaning metal, including paper wrapper	Kilog.	0.15	25	do
For clarifying wine, including paper wrapper	"	2.00	do	
Curry, including paper wrapper	"	0.55	do	
Dry, known as "Parisian," for use in painting	Kilog	0.40	do	
Poplin:				
Of wool, and of wool and silk		—	do	
Porcelain, white:				
Plates, common, in barrels, casks, or cases, gross weight	Kilog	0,12	35	do
Toilet sets, decanters, with or without glass, chandeliers, spittoons, candlesticks, table services, small pots, etc., in barrels and casks, gross weight	Kilog	0.18	do	
Do in cases	"	0.20	do	
Do superior, colored, gilded and enamelled, in barrels or casks, gross weight	Kilog	0.30	do	
Do in cases, gross weight	"	0.40	do	
Colored, gilded and enamelled, superfine quality		*	do	
Doors and windows, of wood		*	do	
Bracelets of cocoa-fibre and India-rubber, per pair	Dozen	3.00	25	do
Point or tulle, of cotton, white, plain, 0.2 centavo per centimetre in width		—	do	
Do with designs, 0.3 centavo per centimetre wide		—	do	
Cheeses of every kind, gross weight	Kilog	0.40	35	do
Printed calico, cambric muslins, satins, glazed lining, and creton of cotton, of every kind, net weight	Kilog	1.50	25	do
Snuff (powdered tobacco), specific duty	"	1.50	Kilog	3.00
Satine of wool, with mixture of cotton, common, for lining garments, 0.5 centavo per centimetre of width		—	25 p.c.	*ad val*
Do superior, 0.7 centavo per centimetre of width		—	do	
Do of wool, common, for women's dresses, or linings for coats, 0.8 centavo per centimetre of width		—	do	
Cuttings of gauze or cambric, of cotton, embroidered, common, not exceeding 5 centimetres in width	Metre	0.06	do	
Cuttings of gauze or cambric, of cotton, embroidered, common, exceeding 5 but less than 10 centimetres,	Metre	0.12	do	
Fishing nets		*	15	do
Watches of all kinds		—	do	
Oars for boats	Each	1.00	do	
Reps, of wool and cotton, common, up to 132 centimetres wide, for furniture	Metre	0.85	25	do
Do superior	"	1.25	do	
Do of wool, common, up to 132 centimetres wide	"	1.00	do	
Do superior	"	1.75	do	
Pine-resin	Kilog	0.07	Free	
Ready-made clothing:				
Cotton-socks, common, for men	Dozen	0.80	25 p.c.	*ad val*
Do medium quality	"	1.50	do	
Do fine	"	3.50	do	
Do superior	"	*	do	
Cotton socks, common, for children,	"	0.50	do	
Do medium quality	"	0.80	do	
Do fine	"	1.75	do	
Socks of wool, or with mixture of cotton, common, for men	Dozen	2.00	do	

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Articles, etc.		Valuation. Ps. Cs.	Duty.
Ready-made clothing:			
Do medium quality	"	3.00	25 p.c. *ad val*
Do fine	"	5.00	do
Do superior		*	do
Socks of wool, or with mixture of cotton, common, for children	Dozen	0.85	do
Do medium quality	"	1.25	do
Do fine	"	2.50	do
Men's paper collars	Gross	1.25	do
Cotton stockings, common, for women	Dozen	0.70	do
Do medium quality	"	1.50	do
Do fine	"	3.50	do
Do superior	"	*	do
Cotton stockings, common, for men	"	1.00	do
Do medium quality	"	1.75	do
Do fine	"	4.00	do
Do superior	"	*	do
Cotton stockings, common, for children	"	0.60	25 do
Do medium	"	1.25	do
Do fine	"	2.50	do
Do superior		*	do
Woollen stockings, common, or with mixture of cotton, common, for women or men	Dozen	2.50	do
Do medium quality	"	4.50	do
Do fine	"	7.00	do
Do superior	"	*	do
Woollen stockings, or with mixture of cotton, for children, common	Dozen	1.25	do
Do medium quality	"	2.00	do
Do fine	"	4.00	do
Do superior		*	do
Wearing apparel of every other kind		—	35 do
Necklaces of common wood, with the beads strung on copper or iron wire	Gross	4.00	25 do
Do of wood, carved, cocoa-nut, or bone, with the beads strung on copper or iron wire	Gross	12.60	do
Sheets for bed-clothes of cotton, craped, gross weight,	Kilog	1.25	do
Empty sacks:			
Of hemp, for packing	Kilog	0.35	15 do
Of hemp or jute, such as Osnaburgs, gross weight,	Kilog	0.40	do
Of cotton, gross weight	"	0.55	do
Of linen canvas-cloth, gross weight	"	0.65	do
Other qualities, gross weight	"	0.16	do
Sago, loose or in packets	"	0.17	25 do
Salt, common, powdered or in blocks	Quintal	0.70	do
Do refined or semi-refined, gross weight	Kilog	0.05	do
Sausages, loose or in tins, gross weight	"	0.60	35 do
Saltpetre, unrefined, gross weight	"	0.04	Free
Salmon, in water, in tins, pots or glasses, gross weight,	Kilog	0.25	35 p.c. *ad val*
Sauces of every kind, in tins, bottles, or glass* flasks	"	0.30	do
Sardines, preserved in oil, gross weight	"	0.35	do
Tissues:			
Of wool and cotton, for shoes, up to 10 cross threads, 0.55 centavo per centimetre wide		—	25 do
Do up to 15 cross threads, 0.65 centavo per centimetre wide		—	do
Tissues:			
Of wool and cotton, for shoes up to 20 cross threads, 0.95 centavo per centimetre wide		—	25 p.c. *ad val.*
Do above 20 cross threads, 1.10 centavo per centimetre of width		—	do
Of wool and silk, for hose, up to 18 cross threads, 1.4 centavo per centimetre wide		—	do

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Articles, Etc.		Valuation. Pr. Ca.	Duty.	
Tissues;				
Do up to 25 cross threads, 1.9 centavo per centimetre wide		—	25 p.c.	*ad val*
Do above 25 cross threads, 2.5 centavos per centimetre wide		—		do
Tallow, purified, gross weight	Quintal	18.00		do
Do raw, gross weight	"	15.00		do
Services of cotton damask for the table, common, consisting of a table-cloth, 2 m in length, and 12 serviettes from 50 to 60 centimetres long	Service	2.50		do
Do medium quality	"	3.50		do
Do superior	"	5.00		do
Services of linen damask, common, consisting of a table-cloth 3 m 50 long, and 12 serviettes from 50 to 60 centimetres long	Service	5.50	25 p.c.	*ad val.*
Do fine	"	10.00		do
Do superior		*		do
Tea services of linen damask, common, comprising a table-cloth 1 m 60 long, and 12 serviettes from 35 to 40 centimetres long	Service	4.50		do
Do fine	"	7.00		do
Do superior	"	*		do
Serviettes of cotton damask, common, from 50 to 60 centimetres long	Dozen	0.80	25 p.c.	*ad val.*
Do superior	"	1.25		do
Do of linen damask, common, from 50 to 60 centimetres long	Dozen	1.50	25	do
Do semi-fine	"	2.50		do
Do fine	"	5.00		do
Do superior	"	7.00		do
Table-cloths of woollen cloth or cashmere, with stamped designs, per square metre	Sq Metre	1.00		do
Do of damask of wool or with mixture of cotton, per square metre	Sq Metre	0.60		do
Envelopes of cotton paper, for letters, lined or not, including cardboard boxes and paper wrappers	Kilog.	0.80	25	do
Do of linen paper	"	2.00		do
Do of silk paper	"	2.00		do
Do do with monograms	"	*		do
Hats:				
Sailors' or working men's caps of baize, very common	Dozen	2.50	25	do
Caps of oiled cloth, common, for children	"	2.50		do
Do of straw or hair, common	"	7.00		do
Do of cotton, or with mixture of wool and linen, common	Dozen	5.00		do
Do of cloth, not embroidered, with or without peak, large and small, common	Dozen	9.00		do
Do do other qualities	"	*		do
Of wool, pressed, or of woollen cloth, for men or children	Dozen	9.00		do
Do medium quality	"	15.00		do
Do superior	"	24.00		do
Of felt, silk, or mixture, round, with or without cardboard boxes, for men	Dozen	56.00		do
Of hair or "castor" cloth, round trimmed, ordinary shape, with or without cardboard boxes, for men	Dozen	36.00		do
Common, of coarse agave thread, known as "chapalos, machitos, or pavas flacas"	Kilog.	4.00		do
Of superior agave thread, with large brims, without distinction of quality, gross weight	Kilog.	8.00		do
Of Italian straw, with wide or narrow brims, plain, common, trimmed or not, round or otherwise, for men	Dozen	12.00		do

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Articles, Etc.		Valuation.	Duty.
		Ps. Cs.	
Hats:			
Do for children	Dozen	6.00	35 p.c. *ad val*
Do fine, for children	"	10.00	do
Of Italian straw, etc., common, with ornaments, for children	Dozen	14.00	do
Do fine	"	20.00	do
Of Manila or imitation straw, common, trimmed or not, for men	Dozen	20.00	35 p.c. *ad val.*
Do superior	"	30.00	do
Of velvet, hair, straw or imitation, with ornaments, common, for women	Dozen	20.00	do
Do medium quality	"	32.00	do
Of silk, velvet, hair, straw or imitation, fine, trimmed and ornamented, without fine lace, for women	Dozen	66.00	do
Do with fine lace		*	do
Other qualities		*	do
Hats and parts of the same, not otherwise distinguished		—	25 p.c. *ad val.*
Leather wads, prepared for the tips of billiard cues	Thousand	4.00	35 do
Havana tobacco in leaves, or cut in any form (specific duty)	Kilog.	0.80	Kilog. 1.50
Tobacco of any other kind (specific duty)	"	0.40	do 1.00
Staves for small casks for vermicelli, wines or liquors, joined or not, gross weight	Kilog.	0.04	25 p.c. *ad val.*
Do of pinewood, not joined, up to three millimetres thick, 50 centimetres wide at the extremities	Metre	0.05	do
Do of cedar	"	0.08	do
Gun wads	Dozen	1.25	35 do
Billiard cues of common wood	"	5.00	do
Do fine, inlaid or ornamented	"	10.00	do
Harness, trunkmakers' wares, etc:			
Harness and accessories, common, for a carriage horse	Each	35.00	do
Do medium quality	"	80.00	do
Do superior		*	do
Trunks, covered with sailcloth or sheepskin, up to 50 centimetres long	Each	2.50	do
Do up to 65 centimetres long	"	3.50	do
Do up to 75 centimetres long	"	4.50	do
Do up to 85 centimetres long	"	6.00	do
Do covered with horse-skin leather, pig-skin leather, or imitation, up to 50 centimetres long	Each	4.00	do
Do do up to 65 centimetres long	"	5.50	do
Do do up to 75 centimetres long	"	7.50	do
Do do up to 85 centimetres long	"	10.50	do
Do covered with cow-skin leather, up to 50 centimetres long	Each	5.50	do
Do do up to 65 centimetres long	"	7.50	do
Do do up to 75 centimetres long	"	11.50	do
Do do up to 85 centimetres long	"	15.00	do
Satchels	Pair	14.00	do
Hat-boxes of sheep-skin leather or cloth	Dozen	18.00	do
Do of pig-skin leather	"	30.00	do
Do of cow-skin leather	"	48.00	do
Hat-boxes for two hats have similar valuations to the above, with an addition of 50 per cent		—	do
Game bags of hempen thread woven with pieces of copper, common	Dozen	12.00	do
Do medium quality	"	24.00	do
Do. fine	Dozen	36.00	35 p.c. *ad val.*
Travelling bags of leather, common	Each	3.00	do
Do of carpet or strong cloth	"	1.50	do
Bags, with wooden bottoms, of sheep-skin, leather or cloth, in the shape of a portmanteau	Each	3.00	do
Do of cow-skin leather	"	5.00	do

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ARTICLES, ETC.		VALUATION. Ps. Cs.	DUTY.	
Harness, trunkmakers' wares, etc.:				
Saddles, common, of pig-skin leather, plain, with or without accessories, for men	Each	20.00	do	
Do with a portion of common leather	"	16.00	do	
Saddles, very common, plain, with seat and sides of common leather, morocco, etc., for men	Each	12.00	do	
Do medium quality, with or without accessories, for women		24.00	do	
Saddles of other kinds, superior or inferior		*	do	
Saddlery, trunkmakers' wares, etc., not otherwise distinguished		—	25 p.c.	*ad val.*
Venetian talc, whole, for soapmakers, gross weight	Kilog.	0.04	do	
Do powdered, in barrels and sacks, gross weight	Kilog.	0.06	do	
Do powdered, superior, in pots or glasses, including the same	Kilog.	0.15	do	
Tapioca, loose or in packets, including the wrapper	Kilog.	0.30	do	
Visiting cards, common	"	1.25	do	
Do fine	"	2.00	do	
Cards for photographs	"	0.70	do	
Tarlatan:				
Of cotton, white, for women's dresses, from 125 to 155 centimetres wide and up to 20 threads in the warp and woof	Metre	0.15	do	
Do above 20 threads	"	0.25	do	
Do do colored. An increase above the preceding valuations of 1.5 centavo per metre		—	do	
Tartan:				
Of wool and frieze, with colored stripes or checks, common, for lining winter garments, up to 140 centimetres wide	Metre	0.75	do	
Tea (specific duty)	Kilog.	1.50	Kilog	0.75
Woollen knitted wares, common	"	3.50	25 p.c.	*ad val.*
Do with mixture of silk	"	7.00	do	
Do of merino	"	5.50	do	
Do do with mixture of silk	"	10.00	do	
Cotton knitted wares	"	4.50	"	
Velvet of wool or with mixture of cotton, plain or worked, for upholstering furniture, up to 70 centimetres wide	Metre	1.00	do	
Ink:				
For writing, in bottles or flasks, of common glass, up to 150 grams each, gross	Dozen	0.20	do	
Do with metal capsule	"	0.33	do	
Do in stone bottles	Litre	0.45	do	
Do in small stone jars, up to 150 grams each, gross	Dozen	0.20	do	
Chinese, in paste	Kilog	2.20	do	
For printing or lithographing	"	0.40	Free	
Marking, in small flasks, up to 75 grams each, gross, common	Dozen	1.00	25 p.c.	*ad val*
Braces, of cotton and India-rubber, common	"	1.00	do	
Do do fine	"	3.00	do	
Do without elastic, with buckles	"	0.40	do	
Chalk:				
In blocks, for billiard cues	Gross	0.50	do	
In sticks, for schools	"	0.20	do	
Do for tailors	"	0.35	do	
Bacon, salted or in tins	Kilog	0.20	35	do
Awnings of waxed sail cloths, 6 metres wide and 7 m. 50 long	Each	25.00	25	do
Do not waxed, 6 metres wide and 7 m. 50 long	"	20.00		do
Carpets:				
Brussels, for rooms and staircases, gross weight	Kilog	1.50	35	do

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Articles, etc.		Valuation. Pts. Cs.	Duty.	
Carpets:				
Woollen, of other kinds, gross weight	Kilog	1.00	35 p.c. *ad val*	
Of wool, felted, common, gross weight	"	1.80	do	
Do known as "Brussels," gross weight	"	2.20	do	
Of wool, felted, other qualities, gross weight		*	do	
Candles:				
Tallow	Kilog	0.30	25 do	
Of wax or imitation, and those of stearine, ornamented,	Kilog	1.00	35 do	
Do with gilding	"	2.00	do	
Of composition, stearine and paraffine	"	0.50	do	
Sperm	"	1.00	do	
Vinegar, common, in ordinary bottles	Dozen	2.00	25 co	
Do in large receptacles	Litre	0.07	do	
Do known as "rosat," in small flasks, including the same,	Kilog	0.40	do	
White wine, in common bottles (specific duty)	Dozen	10.00	Dozen	3.00
Do in larger receptacles (specific duty)	Litre	0.80	Litre	0.32
Red wine in common bottles (specific duty)	Dozen	10.00	Dozen	2.25
Do in larger receptacles (specific duty)	Litre	0.50	Litre	0.25
Labels or tickets, gilded, engraved, of ordinary dimensions, for bottles	Thousand	6.00	35 p.c. *ad val*	
Yerba maté (specific duty)	Kilog	0.20	Kilog	0.06
Touchwood	"	1.35	25 p.c. *ad val*	
Jute, raw	"	0.10	Free	
Sumac, in powder	"	0.15	25 p.c. *ad val*	
Silk, and manufactures of:				
Ribbons of silk and cotton		*	do	
Do for bordering shoes	Hectom	0.90	do	
Do of silk and cotton galloons, for hats	Metre	0.05	do	
Plush, of black silk, with mixture of cotton, up to 60 centimetres wide, for hats	Metre	1.25	do	
Do up to 80 centimetres	"	1.75	do	
Silk and wool material, plain, for covering furniture, 1.5 centavo per centimetre wide		—	do	
"Lama" of silk, with silver thread, with or without gilding, up to 6 centimetres wide	Metre	4.00	do	
Do with thread of common metal up to 65 centimetres wide	Metre	2.75	do	
Garters, of silk, or with mixture of cotton, with or without elastic	Dozen	3.00	do	
Handkerchiefs or neckerchiefs of silk and cotton, plain or worked	Kilog	12.00	do	
Umbrellas, of silk, with mixture of cotton, common,	Each	2.00	do	
Do of silk	"	3.50	do	
Parasols, of silk, with mixture of cotton, with or without lining, common, up to 50 centimetres long, measuring along the stick	Dozen	3.00	do	
Do do medium quality	"	15.00	do	
Do of silk, common, up to 50 centimetres long, measuring along the stick	Dozen	24.00	do	
Do of silk, fine, plain or embroidered, up to 50 centimetres long, measuring along the stick		*	do	
Satin, twilled, and similar materials of silk, with woof of cotton or linen, for garments or lining, including the cardboard, boards, ribbons, and packing paper,	Kilog	15.00	do	
Satin and rep of silk, with mixture of cotton or linen, for furniture, curtains, etc., including cardboard boxes, etc	Kilog	15.00	do	
Braces of silk, or with mixture of other materials, with elastics	Dozen	3.00	do	
Manufactures of silk, not otherwise distinguished		—	35 do	
Steel, not worked, in bars or sheets, gross weight	Kilog	0.12	Free	
Do in sheets, for carriage springs	"	0.25	do	
Do in perforated sheets	"	0.50	25 do	

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Articles, etc.		Valuation. Ps. Cs.	Duty.	
Sharpeners, with haft of bone or stag's horn, common, for butchers	Dozen	2.50	15	p.c. *ad val*
Do common, for table knives	"	5.00	25	do
Do with haft of ivory or imitation, for table knives	"	10.00		do
Needles, thick, ordinary	Thousand	0.60		do
Sewing-needles, in packets	"	0.30		do
Do in boxes or cases of cardboard	"	0.75		do
Crochet-needles, common, without haft	Hundred	0.75		do
Do fine	"	1.50		do
Do with haft, common	"	2.00		do
Do fine	"	4.00		do
Packing-needles	"	0.75	15	do
Sail-needles	"	1.50		do
Mattress-needles	"	1.00	25	do
Sewing-machine needles	"	0.80	15	do
Needles, bent	"	1.50		do
Needles, magnetised, or compass needles	Dozen	12.00	25	do
Wire :				
Of iron, for bottle-stoppers	Kilog	0.30		do
Do galvanized or tinned, for bottle stoppers	"	0.40		do
Of bronze or copper	"	0.60		do
Of iron, galvanized with bronze or copper	Kilog	0.18		do
Of bronze or copper, for sieves, up to 60 centimetres wide	Metre	1.50		do
Of iron, with staples, for fencing, not galvanized, gross weight	Kilog	0.09		do
Do galvanized	"	0.12		do
Of iron, for fencing, up to No. 7, inclusive	"	0.07	15	do
Do up to No. 9, inclusive	"	0.11	25	do
Do up to No. 20, inclusive	"	0.16		do
Do above No. 20	"	0.20		do
Do galvanized, up to No. 7, inclusive	"	0.10	15	do
Do up to No. 9, inclusive	"	0.14	25	do
Do up to No. 20, inclusive	"	0.19		do
Do above No. 20	"	0.25		do
Gauze of iron wire, for sieves, up to 60 centimetres wide,	Metre	0.40		do
Do galvanized	"	0.50		do
Of iron, for musical instruments	Kilog	2.00		do
Do covered with cotton or paper, for milliners	"	2.00		do
Do covered with silk, for milliners	"	3.00		do
Pins, common, including cardboard boxes or paper wrappers	Kilog	1.25		do
Wooden pegs, with springs, for laundresses	Hundred	1.00		do
Wooden pegs without springs	"	0.25		do
Pincers	Dozen	2.00	15	do
Almanacs or calendars of tin, varnished, for offices, up to 13 centimetres wide	Dozen	4.25	35	do
Mortars of cast-iron, enamelled or not	Kilog	0.16		do
Do of wood, up to 20 centimetres diameter, measured from outside to outside rim	Dozen	4.50	25	do
Do of glass, faïence, composition or marble, up to 15 centimetres in diameter	Dozen	7.00		do
Do up to 26 centimetres in diameter	"	10.00		do
Do above 26 centimetres in diameter	"	24.00		do
Horse combs, common	"	1.50		do
Do fine	"	2.50		do
Portable stoves of tinplate	From 5.00 to	12.00	35	do
Anchors of iron	Kilog	0.13		Free
Cruet stands, common, of white metal, nickel-plated, with from 4 to 7 pieces of glassware	Each	8.00	35	p.c. *ad val*
Do common, of yellow metal, plated, with from 4 to 7 pieces of metal	Each	3.50		do
Do very common, of tinplate or brass, silver-plated, with from 4 to 7 pieces of glassware	Each	1.50		do

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Articles, etc.	Valuation. Ps. Cs.	Duty.	
Do common, of britannia metal, silver-plated, with from 4 to 7 pieces of glassware.....Each	2.00	25 p.c.	*ad val*
Do of iron, wood, paper paste or composition, with from 4 to 7 pieces of glassware.....Dozen	8.00		do
Do of wood, common, with from 4 to 7 pieces of glassware.....Dozen	4.00		do
Rings, heads and points of iron for umbrellas, including cardboard and paper package.....Kilog	0.60		do
Spectacles of ironware, common.....Dozen	1.25		do
Do do superior.....	*		do
Do with side glasses, common and medium quality, without cases.....Dozen	1.50		do
Do with cases..... "	2.50		do
Do do superior, with or without cases.....	*		do
Opera glasses of brass, common and medium quality, ...Each	2.50	35	do
Do with leather.....Each	3.50		do
Do enamelled or with painted porcelain, medium quality .....Each	4.00		do
Do do superior..... "	5.00		do
Do known as marine, common..... "	7.00		do
Do do fine.....	*		do
Do of mother-of-pearl, tortoise-shell, ivory, medium quality.....Each	7.00		do
Do do fine.....	*		do
Telescopes:			
Common.....Each	4.00	25	do
Medium quality..... "	7.00		do
Fine..... "	10.00		do
Superior.....	*		do
Fish-hooks.....Thousand	2.00	15	do
Apparatus for stretching fencing wire.....Each	4.00	25	do
Apparatus for wire making..... "	8.00		do
Ploughs, ordinary, and those known as "cultivators," fitted or not, gross weight.....Kilog.	0.13	15	do
Rings:			
Of iron, bronzed, for curtains, including the cardboard boxes and paper wrappers.....Kilog	0.35	25	do
Of iron, with screws for small padlocks, including boxes, etc.....Kilog	0.45		do
Of iron, with fixed screws for small padlocks, including boxes, etc.....Kilog	0.70		do
Of iron, tinned, for reins and headstalls, including boxes, etc.....Kilog	0.35		do
Of metal, silver-plated, for reins and headstalls, including boxes, etc.....Kilog	1.50		do
Of white metal, for reins and headstalls, including boxes, etc.....Kilog	1.10		do
Of mixture of tin and lead, for reins and headstalls, including boxes, etc.....Kilog	0.80		do
Of iron or steel, common, for carrying keys.....Dozen	0.40		do
Sieves of copper gauze, up to 60 centimetres in diameter .....Dozen	13.00		do
Do of iron gauze, up to 60 centimetres in diameter "	8.00		do
Do of thick wire, up to 60 centimetres in diameter "	10.00	15	do
Iron props for fencing wire.....Kilog	0.12		do
Do galvanized for fencing wire..... "	0.14		do
Bottle-holders, of metal, silver-plated, common, per pair .....Pair	4.00	35	do
Mattocks of iron, common, without handles.....Kilog	0.20	15	do
Sugar bowls:			
Of brass, polished.....Dozen	6.00	25	do
Of britannia metal..... "	12.00		do
Of white metal, silver-plated..... "	36.00	35	do
Adzes without hafts, for carpenters or coopers.....Kilog	0.50	15	do

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ARTICLES, ETC.	VALUATION. Ps. Cs.	DUTY.
Scales:		
Small, in wooden boxes, for weighing gold, with plates, from 7 to 15 centimetres in diameter....Each	4.00 25	do
Common, hand, with balance of iron and plates of brass, up to 40 centimetres in diameter....Dozen	8.00	25 p.c. *ad val*
Do with plates of copper or bronze, up to 13 centimetres in diameter....Dozen	6.00	do
Do up to 41 centimetres in diameter.... "	16.00	do
Common, small, not roman, with a single plate, which does not exceed 46 centimetres in length....Each	4.00	do
Roman, with a single plate, for weighing up to 28 kilograms....Each	6.00	do
With a single plate known as "Union," for weighing up to 125 kilograms....Each	14.00	do
Roman, flat, in cases of wood or iron, gross weight....Kilog	0.25	do
For chemical and analytical operations....	* 15	do
Buckets:		
Of iron used in mining operations....Kilog	0.25	do
Hand, portable, of tin, painted....Dozen	12.00 35	do
Of iron, hand, portable, painted, tinned and galvanized....Kilog	0.30 25	do
Hand, portable, of wood, painted, with two or three bands of iron....Dozen	3.00	do
Hand, of oak, for ships.... "	5.00	do
Hand, of wood, plain or painted, with hoops of bronze....Dozen	6.00	do
Do of wood, with hoops of wood, in sets of three "	16.00	do
Do of gutta-percha.... "	21.00	do
Trays:		
Varnished, very common, of iron, with cut edges, not bent....Kilog	0.55	do
Do of iron, common, with bent edges.... "	0.70	do
Do fine.... "	0.90	do
Of composition, varnished, common....Decim	0.30 35	do
Of iron or brass, varnished, common, for candle snuffers....Dozen	0.75 25	do
Of metal, silver-plated, common, for candle-snuffers....Dozen	3.00 35	do
Baths (shower), of brass, painted, or tinned, composed of several pieces....Each	25.00	do
Do of brass, painted or tinned, from 91 to 102 centimetres long, measured along the bottom....Each	6.00	do
Do do up to 114 centimetres long.... "	10.00	do
Do do up to 140 centimetres long.... "	14.00	do
Do do with brass bottom, painted or tinned.... "	6.00	do
Foot-baths of brass, painted or tinned.... "	2.00	do
Ramrods, with or without wad removers....Dozen	9.00 25	do
Gimlets, from 12 to 50 millimetres in diameter.... "	5.00 15	do
Small gimlets, with handles, to 25 cent. long....Dozen	1.25	do
Do with or without handles, common, to 15 cent...Gross	4.00	do
Levers of iron....Kilog	0.08	do
Iron troughs.... "	0.15	do
Boat-hooks of iron, without handles.... "	0.18	do
Do galvanized.... "	0.24	do
Bits of cast-iron, common....Dozen	2.00 35	do
Do superior.... "	6.00	do
Escutcheons of wood, plain, for drawer locks....Gross	1.50 25	do
Do carved.... "	3.00	do
Do of leather.... "	1.75	do
Do mother-of-pearl and porcelain, for drawer locks...Gross	5.00	do
Do metal, silver-plated, without covrs. for furniture, Doz	0.75	35 p.c. *ad val.*
Axle boxes of cast-iron, for carts....Kilog.	0.14	25 p.c. *ad val.*
Do for carriages.... "	0.17	35 p.c. *ad val.*
Speaking trumpets for ships....		Free
Iron pumps, common, for wells....Each	5.00	25 p.c. *ad val.*

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ARTICLES, ETC.		VALUATION. Ps. Cs.	DUTY.
Chain, fountain, etc., pumps, with accessories for wells, not including the chain and pipe	Each	5.00	25 p.c. *ad val*
Accessories for chain pumps for wells, not including the chain and pipe	Dozen	12.00	do
Pumps of copper, for barrels	"	4.00	do
Fire pumps with accessories			Free
Steam pumps, for irrigating fields and pumping mines		*	15 p.c. *ad val.*
Steam pumps, with tubes of gutta-percha or leather, for pumping mines, together with their accessories		*	do
Boats and sloops, mounted or not			Free
Small tubes for drinking yerba maté, of tin	Gross	1.25	35 p.c. *ad val.*
Do of metal, silver plated	Dozen	1.50	do
Small braziers, bronze, up to 9 centm. in diameter	Doz.	1.75	25 p.c. *ad val.*
Do of metal, tinned or silver-plated, common	do	4.00	35 p.c. *ad val.*
Braziers of ordinary shape, of bronze, with framework of same metal	Each	8.00	25 p.c. *ad val.*
Do in the form of flower-pots, with or without a kettle, up to 65 centimetres in height	Each	10.00	do
Do of wrought iron, ordinary shape	Kilog.	0.30	do
Do of cast iron	"	0.10	do
Clasps or hooks of iron wire, any color, including small cardboard boxes or the paper wrappers	Kilog.	1.00	do
Bronze, in powder	"	7.00	do
Do manufactured, with or without small parts of iron or porcelain, as screw-rings, mortars, rings, lamp chains, tubes, knockers, cocks for barrels, weights, pommels, door locks, springs, pulleys, small wheels, hinges, etc., including cardboard boxes and paper wrappers	Kilog.	1.15	do
Brass, manufactured, as burners and rings for lamps, keyholes, etc., including cardboard boxes and paper wrappers	Kilog.	1.75	do
Cables of metal thread	"	0.35	do
Saucepans of cast iron, tinned	"	0.20	do
Do with porcelain	"	0.40	do
Chains, iron, with links more than 13 milm. diam.	"	0.09	Free
Do, the links not exceeding 13 milm. in diam	"	0.11	15 p.c. *ad val.*
Do for balances	"	0.40	do
Do for well pumps	"	0.20	do
Do for carts	"	0.11	do
Do for doors	"	0.20	do
Do for dogs	"	0.30	do
Do of common metal, gilded, for watches	Dozen	3.00	25 p.c. *ad val.*
Coffee-pots of tin, not varnished, common, from 5 to 24 decilitres in capacity	Dozen	4.00	35 p.c. *ad val.*
Do of less than 5 decilitres capacity	"	2.50	do
Do Britannia metal, com., 5 to 20 decil. capacity	"	24.00	25 p.c. *ad val.*
Do white metal silver-plated, " " "	Each	7.50	35 p.c. *ad val.*
Safes of cast iron	Kilog.	0.14	do
Do of wrought iron, plain, fireproof	"	0.24	do
Do do ornamented with nails	"	0.35	do
Tea caddies, tin, painted, com., to 20 centm. long	Dozen	6.00	do
Do of Britannia metal, not silver-plated	"	24.00	25 p.c. *ad val.*
Boxes of tin, painted, from 30 to 51 centm. long	Each	2.00	35 p c. *ad val.*
Do from 15 to 30 centimetres long, for tills	"	1.25	do
Boilers for steam machines, gross weight	Kilog.	0.15	15 p.c. *ad val.*
Heating apparatus, copper, tinned or not, in cylindrical form, and with two pipes, for baths	Each	7.00	25 p.c. *ad val.*
Do of tin, etc	"	4.00	35 p.c. *ad val.*
Shoe-horns of metal	Dozen	2.00	25 p.c. *ad val.*
Do of horn or bone	"	1.00	do
Bells of bell-metal	Kilog.	0.70	do
Do of steel	"	0.30	do
Do of cast iron	"	0.14	do
Rings of bronze, for umbrellas	"	2.00	do
Do silver-plated	"	2.50	do
Hand-bells, metal, with gongs, to 9 centm. diam.	Dozen	2.50	do

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Articles, etc.		Valuation. Pr. Cs.	Duty.
Bells, with springs, for houses, including access'rs	Dozen	10.00	35 p.c. *ad val.*
Do of metal for animals	"	2.50	25 p.c. *ad val.*
Do of iron, for animals	"	1.75	do
Do electric	"	*	35 p.c. *ad val.*
Baskets, of metal, silver-plated, common, up to 30 centimetres long, for bread, fruit, etc	Each	6.00	do
Padlocks of iron or bronze, with or without keys		—	25 p.c. *ad val.*
Chandeliers, bronze, without relief, one light	Kilog.	1.00	do
Pipes of wrought iron, for chimneys, stoves, etc.	"	0.22	15 p.c. *ad val.*
Do large	"	0.12	do
Do galvanized	"	0.15	do
Do of cast iron	"	0.08	do
Do of lead or composition, gross weight	"	0.12	do
Do of wood, for wells	Decim.	0.02	25 p.c. *ad val.*
Capsules of metal, for bottle-stoppers	Kilog.	1.00	15 p.c. *ad val.*
Winchester rifles	Each	28.00	35 p.c. *ad val.*
Cartridges of every kind		—	do
Bobbins of tin, painted, for packthread	Each	0.50	do
Wheelbarrows:			
Of iron, with one wheel	"	7.00	15 p.c. *ad val.*
Do with two wheels	"	4.50	do
Of wood, with one wheel	"	4.00	do
Do with two wheels, up to 1 m. 50 wide	"	8.00	do
Similar to preceding, exceeding 150 centm. wide	"	12.00	do
Small bedsteads and cradles of iron, complete, with or without gilding or knobs of brass, gross weight	Kilog.	0.12	35 p.c. *ad val.*
Do of iron, with parts of bronze, gross weight	"	0.25	do
Do of bronze, corresponding parts iron, gr. wt.	"	0.45	do
Do of bronze, without pieces of iron, gross weight	"	0.80	do
Do all other kinds	"	*	do
Planes, mounted, of all kinds (with exception of moulding planes), with accessories, to 66 centm. wide	Dozen	10.00	15 do
Carpenters' moulding planes of all kinds	Each	4.00	do
Anchor-stocks of iron	Kilog.	0.18	Free
Locks, iron and bronze, for doors, drawers, etc		—	25 p.c. *ad val.*
Scissors of steel	Kilog.	0.50	15 do
Nails of copper used in sheathing ships	"	0.60	Free
Do of composition, used in sheathing ships	"	0.55	"
Do other kinds		—	25 p.c. *ad val.*
Copper, sheets or plates, for sheathing ships	Kilog.	0.55	Free
Do for other uses	"	0.60	25 p.c. *ad val.*
Do in perforated sheets, for sieves	"	0.85	do
Do old, in lumps or as old sheathing	"	0.25	do
Do manufactured, in blocks, common, 4,000 grams and above	Kilog.	0.65	do
Stoves, wrought or cast iron, with or without accessories, or pieces of the same metal, together or separate, gross weight	Kilog.	0.14	do
Angle iron, crosses, and other pieces of wrought iron, not galvanized, for joining pipes, gross weight	Kilog.	0.15	do
Do galvanized, for joining pipes	"	0.25	do
Strainers of tinned iron, for coffee-pots	Dozen	0.50	35 do
Collars of leather or metal, for dogs	"	3.00	25 do
Hammers of iron, common, without hafts	Kilog.	0.12	15 do
Do of steel, without hafts	"	0.20	do
Compasses of iron, common, without screws	Dozen	1.50	do
Do up to 30 centimetres long	"	4.50	do
Do of iron and bronze, common	"	2.50	do
Head pieces of metal, silver-plated, for harnesses, per pair	Dozen	2.50	25 do
Do German silver	"	2.00	25 do
Cornices of bronze for curtains, including paper wrappers	Kilog.	3.00	35 do
Penknives		*	do
Crosses, metal for rosaries, brass, up to 38 millm.	Gross	0.50	25 do

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ARTICLES, ETC.		VALUATION. Ps. Cs.	DUTY.
Pulleys of iron, common	Kilog.	0.18 15	p.c. *ad val*
Salad bowls of boxwood, common	Dozen	1.25 25	do
Do of ebony	"	4.00	do
Do of ivory	"	15.00	do
Spoons:			
Of metal, silver-plated, ordinary size, common	Dozen	5.00 35	do
Do dessert	"	4.00	do
Do tea	"	3.00	do
Do soup	"	24.00	do
Of every other kind		—	do
Knives:			
Large, for carpenters and coopers	Dozen	7.00 15	do
Do for tanners and curriers	"	16.00	do
Do with haft of wood, common, for butchers, with blades more than 15 centimetres long	Dozen	1 50	do
Do do fine	"	3.00	do
Of every other kind not otherwise mentioned		— 25	do
Oval plates of porcelain or glass, common	Dozen	2.00	do
Do superior	"	6.00	do
Augers of iron for drilling iron, from 30 to 45 centimetres long	Each	6.00	do
Do up to 60 centimetres	"	8.00	do
Chimney pieces or stoves, of bronze or marble		* 35	do
Chocolate pots of tin plate, not varnished	Dozen	4.50	do
Rowlocks of wrought iron	Kilog.	0.25 15	do
Do of iron, galvanized	"	0.30	do
Rules for carpenters	Dozen	3.00	do
Thimbles of bronze or of white metal	Gross	0.50 25	do
Do of iron	"	1.25	do
Do, metal, with pieces of leather for sailmaking	"	12.25	do
Snuffers, iron, very common, varnished or not	Dozen	0.40	do
Do of iron or yellow metal, common	"	1.00	do
Do of steel or iron, fine, with springs	"	3.00	do
Do of metal, silver-plated, with plate	"	12.00 35	do
Turnscrews of iron, for carpenters	"	2.50 15	do
Diamonds for cutting glass	Each	3.00	do
Axle-trees of iron, common, for carts	Quintal	10.00 25	do
Do, carriages, with or without caps of brs., com	Each	3.00	do
Dish covers of metal, of all kinds	Kilog.	1.50	do
Plummets of lead, for seamen	"	0.13	do
Hawsers of iron	"	0.06	Free
Carbines, every kind not otherwise distinguished		— 35	p.c. *ad val.*
Spittoons, round, of brass	Dozen	6.00 25	do
Do of iron, varnished or painted	"	3.00	do
Do of tin, varnished or painted	"	3.00 35	do
Enamel, prepared for artificial flowers, including paper wrappers	Kilog.	7.00	do
Do ornamented with imitation stones, etc., including paper wrappers	Kilog.	13.00	do
Emery	"	0.20 25	do
Spurs:			
Of iron, large, per pair	"	5.00	do
Do tin-plated, per pair	"	5.50	do
Do small, common, tin-plated or not, per pair	"	3.00	do
Of white metal, silver-plated, medium or small size, per pair	Kilog.	14.00 35	do
Of German silver, medium or small size, per pr.	"	12.00 25	do
Of yellow metal, silver-plated, medium or small size, per pair	Kilog.	8.00 35	do
Of other kinds		* 25	do
Skimmers, iron, tin-plated, for use in cooking	Dozen	1.00	do
Tin in bars or sheets	Kilog.	0.60	Free
Do in leaves for covering bottles	"	1.25 25	p.c. *ad val.*
Strips of wrought iron for bottles	"	0.16	do
Do galvanized	"	0.20	do
Stirrups of all kinds, per pair		—	

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ARTICLES, ETC.		VALUATION. Pts. Cs.	DUTY.
Case, containing spoon, knife and fork, for use in travelling	Dozen	16.00 25	p.c. *ad val.*
Lanterns, of glass, common, for carriages	Pair	8.00 35	do
Do large, fine	"	15.00	do
Hoops of iron or wood	Kilog.	0.07	Free
Foils for fencing	Pair	2.00 35	p.c. *ad val.*
Swords, sabres, common, with ornaments of metal, white or yellow, for officers	Each	8.00	do
Kettles:			
Cast iron, not tinned, 46 kilogs. wt. and above	Kilog.	0.09 25	do
And stoves of cast iron, tinned	"	0.20	do
Do of wrought iron	"	0.25	do
Do tinned or galvanized	"	0.30	do
Chisels and gouges, without haft	Dozen	2.00 15	do
Do with haft	"	2.60	do
Iron forges, portable, of all sizes	Each	20.00 25	do
Glass pocket flasks, for liqueurs, covered with straw, leather, or metal	Dozen	6.00 35	do
Bellows:			
Hand, domestic use, to 20 centims. wide, fine	"	10.00 25	do
Do common	"	3.00	do
Do up to 25 centimetres wide	"	4.50	do
Do up to 38 centimetres wide	Each	3.00	do
Do up to 50 centimetres wide	"	6.00	do
Do for forges, from 51 to 106 centimetres wide	Each from 7.00 to	36.00 15	do
Percussion caps, for carbines and pistols	Thousand	0.30 35	do
Do for guns or rifles	"	1.00	do
Do small, with clasps or points for cartridges	"	1.50	do
Percussion gun, with or without bayonet, common, for soldiers	Each	3.00	do
Buckets of wood, painted, with hoops of iron, in sets, from 5 up to 41 centimeters in diameter	Set	2.00 25	do
Do from 8 to 61 centimetres in diameter	"	4.00	do
Pegs or bronze (for hanging clothes), with or without ornaments of crystal or porcln., incl. papr. wrap.	Kilog.	3.00	do
Do of iron, not galvanized, with or without small hooks	Kilog.	0.18	do
Iron jacks for raising weights		—	do
Marking gauges, with pieces of bronze or argentine, for carpenters	Dozen	7.00	do
Rings for anchors	Kilog.	0.13	Free
Do for chains	"	0.20	do
Bowline-cringles of any material		*	do
Axes of iron, com., without handles, workmen	Kilog.	0.20 15	p.c. *ad val.*
Do polished, or with steel, without handles, for workmen or carpenters	Kilog.	0.45	do
Do do with handles, for workmen and carpenters,	"	0.40	do
Do do with short handles, for carpenters	"	0.50	do
Small hatchets of iron, common, with handles, for domestic use	Kilog.	0.40	do
Buckles:			
Of metal, silver-plated, fine, up to 5 centimetres long, for sashes and girdles	Dozen	3.00 35	do
Do more than 5 centimetres long	"	3.00	do
Do up to 25 millimetres long, for spurs	Gross	4.50	do
Sickles, common	Dozen	1.25 15	do
Scythes, large, for mowing	"	12.00	do
Apparatus for ice making		— 25	do
Iron horse-shoes	Kilog.	0.12	do
Iron:			
Raw, in bars, squared, rounded, etc	Kilog.	0.05	Free
In sheets, grooved or plain, painted	"	0.09 25	p.c. *ad val.*
Do neither galvanized nor painted	"	0.08 15	do
Do galvanized	"	0.12 25	do

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ARTICLES, ETC.		VALUATION.		DUTY.
Iron:		Ps. Cs.		
Do perforated	Kilog.	0.80	25	p.c. *ad val.*
Cast in ingots	"	0.08		Free
Manufactured, cast or wrought, tinned or not, painted or not, as handles for trunks, plates, pegs, small hooks, knockers, baking moulds, rowels for spurs, pulleys, counter-weight pulleys for windows, wheels for furniture, etc., including paper wrappers	Kilog.	0.80	25	p.c. *ad val.*
Manufactured, cast or wrought, with porcelain, white or colored, and articles of brass, tinned or not, as plates, moulds for baking, cups, etc., etc., including paper wrappers	Kilog.	0.60		do
Irons for caulkers	Dozen	1.75	15	do
Do for tinmen	"	5.50	25	do
Plates of iron, up to 63 millimetres wide, for joiners' planes	Dozen	2.00	15	do
Do do double	"	3.00		do
Do plain, up to 100 millims. wide, coopers' planes	"	3.50		do
Do double	"	7.50		do
Do for saws for carpenters	Dozen from 2.50 to	4.50		do
Sheets of iron, tinned, common, in wooden cases, gross weight	Kilog.	0.14		Free
Coffee grinders for domestic use	Dozen	17.00	25	p.c. *ad val.*
Stoves of cast iron, for roasting	"	10.00		do
Pitchforks of iron and steel, from 3 to 6 teeth	Dozen from 7.00 to	15.00		do
Hairpins of iron or brass, loose or on paper, including paper wrappers	Kilog.	0.50		do
Do sup., in cardb. boxes, incl. paper wrappers	"	0.75		do
Printing presses and accessories		*		Free
Indicators for steam machinery		*	15	p.c. *ad val.*
Pots of faience or porcelain, with cover of metal	Dozen from 9.00 to	18.00	25	do
Do common, of iron, painted, for lavatories, up to 3 litres capacity	Dozen	5.00	35	do
Do do of brass	"	7.00	25	do
Do tin, com., for drinking, up to 15 centims. high	"	0.50	35	do
Birdcages of iron wire, painted, with or without gilding, common	Dozen	15.00		do
Do of bronze wire, common	"	30.00		do
Do of iron or bronze wire, fine		*		do
Imitation of jewelry not otherwise mentioned		*	25	do
Fire-irons	Set	3.00		do
Lamps of tinned sheet iron, or with pieces of bronze, without handles, for miners	Dozen	2.50	35	do
Do do with handles	"	4.50		do
Do of bronze, without handles, for miners	"	5.00	25	do
Do do with handles, for miners	"	7.00		do
Do one light, with reflector, for hanging on walls	"	15.00		do
Brass in rods or tubes, for carriages, etc	Kilog.	1.25		do
Lavatory sets of tinned sheet iron, painted, consisting of a basin and pitcher	Set	1.00	35	do
Milk jugs of Britannia metal, for tea services	Dozen	12.00	25	do
Do silver-plated, common	"	30.00	35	do
Awls without handles, for shoemakers	Gross	0.60	15	do
Do with handles	"	3.60		do
Files or rasps, every kind, including paper wrap	Kilog.	0.40		do
Hand lanterns, com., tinned sheet iron, painted	Dozen	3.00	35	do
Taps (water), of bronze or copper, fine	Kilog.	2.00	25	do
Do of tin, or of tin and lead, for barrels	Dozen	1.50		do
Do of wood, for barrels	"	1.00		do
Keys:				
Common, for axle-heads	"	6.00	15	do
Do fine	"	14.00		do
Of iron, bronzed, varnished or tinned, for small padlocks	Dozen	0.50	25	do

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ARTICLES, ETC.		VALUATION. Fs. Cs.		DUTY.
Keys:				
Of bronze, for small locks	Dozen	1.00	25	p.c. ad val.
Of iron, for drawer locks	"	1.00		do
Of iron, wrought or bronzed, varnished or tin-plated, for door locks	Dozen	1.00		do
Do polished	"	1.50		do
Of bronze, for door locks	"	2.00		do
Of nickel, for door locks	"	3.00		do
Of steel or bronze, common, for watches	Gross	2.00	35	do
Metal, gilded or silver-plated, com., for watches	"	10.00		do
Hangers for cooking, of iron	Kilog.	0.40	25	do
Shackles of iron, with keys, for horses	Dozen	3.00		do
Hafts of wood or iron, for axes, hammers, etc		—		do
Butter dishes, with plates, of metal or crystal and with bottom and cover of metal silver-plated	Dozen	30.00	15	do
Sewing machines, hand or feet, with or without covers and accessories, without fastenings or wooden table, gross weight	Kilog.	0.60		do
Do with pedals, iron fastenings and wooden table, with or without covers and accessories, gross weight	Kilog.	0.80		do
Do fastenings and wooden table and cover, with or without the machine, gross weight	Kilog.	0.25		do
Do with pedals, with furniture		*		
Machines for agriculture, mining or the arts, fitted or not, gross weight	Kilog.	0.20		do
Hammers of iron or steel, not otherwise mentioned		—		do
Mallets of iron, for carpenters	Kilog.	0.12	25	do
Do of wood	Dozen	2.00	15	do
Bits for borers, common	"	0.80		do
Do fine	"	2.00		do
Tape measures, up to 122 centimetres long, in small boxes of brass or wood, for pocket, common	Dozen	4.00	25	do
Do do up to 10 centimetres	"	8.00	15	do
Do do up to 22 centimetres	"	16.00		do
Do, stuff varnished, com., up to 150 centims. long	"	0.50	25	do
Measures of boxwood, with pieces of bronze, folding, for carpenters, etc	Dozen	4.00	15	do
Do, wood, for liquids in barrels or casks	"	10.00	25	do
Yellow metal, sheets or plates, for sheathing ships	Kilog.	0.50		Free
Do scrap or lumps, or as old sheathing metal	"	0.20	25	p.c. ad val.
Yard measures, wood, bronze, bone, ivory or whalebone		—		do
Moulds of tin, for confectionery	Kilog.	0.60	35	do
Do of faïence, 10 to 25 centimetres long	Dozen	2.00	25	do
Coffee mills, common, with case of wood	"	4.00	25	do
Do of cast iron	"	6.00		do
Do of iron, with hopper and fly wheel, not exceeding 51 centimetres in diameter	Each	4.00		do
Do do with wheel, exceeding 51 centims. diameter	"	7.00		do
Motors of every kind, gross weight	Kilog.	0.20		do
Shot	"	0.14	35	do
Ammunition bags, of leather and chamois-skin		—		do
Knives with forks and spoons, for pocket	Dozen	6.00	25	do
Do common, with haft of bone or wood, for the use of sailors	Dozen	0.60		do
Do do fine	"	1.25		do
Razors, with or without case		—		do
Levels, 25 to 60 centims. long, for carpenters	Dozen	6.00	15	do
Do from 61 to 90 centimetres long	"	14.00		do
Eyelet-holes, of metal, for tailors, etc	Kilog.	4.00	25	do
Saucepans, of cast iron, not tinned	"	0.18		do
Do tinned, with or without cover	"	0.20		do
Do interior of porcelain, with or without cover	"	0.40		do
Tinsel	"	3.50	35	do
Pans, of cast iron, with interiors of porcelain	"	0.40	25	do
Shovels, of wood, with handles	Dozen	4.00		do
Do of tin, painted, small, for domestic use	"	1.50	35	do

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Articles, Etc.	Valuation.	Duty.
	Ps. Cs.	
Do other kinds, not otherwise distinguished	—	15 p.c. *ad val.*
Candlesticks, of iron, tin-plated, common....Kilog.	0.60	35 do
Do of metal, silver-plated, common, per pair....Dozen	36.00	do
Do other kinds, not otherwise mentioned	—	25 do
Grills, of iron, for kitchens....Kilog.	0.30	do
Do with porcelain.... "	0.50	do
Knobs, of faience or porcelain, with small part of bronze, for beds, including cardboard and paper wrap....Kilog.	0.60	do
Weights, of iron, for scales.... "	0.15	do
Latch-keys, of iron, of every kind.... "	0.30	25 do
Latch-keys, of iron, with parts of bronze....Dozen	0.60	do
Picks, for laborers, common, without handles....Dozen	0.20	15 do
Do polished, or with steel.... "	0.30	do
Do for stone-work.... "	0.40	do
Parts of machinery, of iron.... "	0.15	do
Do iron and bronze, or partly of other materials.... "	0.40	do
Do of bronze or partly of other materials.... "	1.25	do
Pincers, of iron.... "	2.50	do
Pistols of every kind	—	35 do
Trowels for gardeners or masons....Dozen	3.00	15 do
Smoothing irons, common, for laundries, tailors and hatters....Kilog.	0.06	do
Do with stove and chimney....Dozen	10.00	do
Pails, of tin, for dairies....Kilog.	0.50	35 do
Do of brass, iron or zinc.... "	0.40	25 do
Plates, of tin, ordinary size.... "	0.55	35 do
Lead:		
In leaves, bars or plates.... "	0.14	Free
In lumps or shapeless pieces.... "	0.08	25 p.c. *ad val.*
Black, for cleaning stoves.... "	0.16	do
Hammered, thin sheets, for bottle-stoppers.... "	1.25	do
Pruning-knives, of iron....Dozen	4.00	15 p.c. *ad val.*
Powder, of zinc, bronze, copper, or yellow metal, common....Dozen	4.50	35 p.c. *ad val.*
Do superior.... "	9.00	do
Do of horn or leather, common.... "	4.00	do
Do do fine.... "	12.00	do
Small grain shovels, etc., of galvanized iron....Kilog.	0.30	25 do
Copying presses, of iron, medium quality, up to 40 centimetres long, with or without accessories....Each	10.00	do
Do up to 50 centimetres long.... "	20.00	do
Do up to 40 centimetres long, common.... "	5.00	do
Daggers, with or without sheath	—	35 do
Points of iron wire, varnished or not, up to 25 millimetres long, for upholsterers and glaziers, including cardboard wrappers....Kilog.	0.30	25 p.c. *ad val.*
Punches, iron, without handles, carpenters, etc....Gross	2.50	15 do
Door scrapers of cast iron....Dozen	12.00	25 do
Scrapers for ships.... "	3.00	do
Rakes, of iron, with or without handles	—	15 do
Watering cans, of tin, painted....Dozen	10.00	35 do
Cast iron grating, common, without gilding, for balconies, windows and gardens....Kilog.	0.12	do
Springs, iron, or iron galvanized, for furniture....Kilog.	0.20	25 do
Do do common, for doors....Dozen	5.00	do
Do of steel, for carriages....Kilog.	0.45	do
Revolvers of every kind	—	35 do
Rails, of iron or steel, for railroads....Kilog.	0.05	15 do
Rifles of every kind, not otherwise mentioned	—	35 do
Roman balances, small, with springs, for weighing up to 12 kilogrammes....Dozen	3.50	25 do
Do do up to 18 kilogrammes.... "	7.00	do
Wheels of wrought iron, for carts....Kilog.	0.18	15 do
Do do for wheelbarrows, with or without axles and screws....Each	1.50	do
Wheels of cast iron....Each	1.00	15 p.c. *ad val.*
Do small, of wood, horn, bone, with pieces of iron or bronze, for legs of chairs, etc....Dozen	0.80	25 do

Articles, etc.		Valuation. Pts. Cs.	Duty.	
Sabres, military, with scabbard of steel or leather	Each	2.00	35	p.c. *ad val.*
Do without scabbard	"	0.50		do
Hollow punches of steel, for shoemakers	Dozen	2.50	15	do
Do in shape of pincers	"	3.00		do
Pincers for iron nails, common, only consisting of nippers	Dozen	9.00	25	do
Do with hammer	"	16.00		do
Salt-cellars of metal, silver-plated, common	Pair	2.00	35	do
Frying pans, of wrought iron	Kilog.	0.30	25	do
Do do tinned	"	0.35		do
Do of cast iron and porcelain	"	0.40		do
Do of wrought iron and porcelain	"	0.60		do
Saws, with handles, up to 75 centimetres long	Dozen	8.00	15	p.c. *ad val.*
Point saws	"	2.50		do
Services of tin, painted, consisting of a kettle, foot-bath and bucket, common	Set	4.00	35	do
Do of brass, painted	"	6.00	25	do
Do do fine	"	8.00		do
Do of Britannia metal, consisting of tea-pot, coffee-pot, sugar-basin and milk-jug, common	Set	6.00		do
Do do silver-plated, common	"	12.00	35	do
Do of white metal, silver-plated, common	"	20.00		do
Do do fine	"	*		do
Saws from 1 m 65 to 2 m 40 wide, with or without accessories	Each	3.50	15	do
Solder	Kilog.	0.25		do
Do of bronze	"	0.50	25	do
Finger rings of every kind		—		do
Boilers, of copper, ordinary size	Kilog.	1.00	25	p.c. *ad val.*
Do of brass	"	0.45		do
Do do galvanized	"	0.60		do
Nails of bronze or copper, up to 25 millimetres long, including cardboard packing	Kilog.	1.00		do
Do of iron	"	0.40		do
Covers, brass, com., without ornament for dishes	Dozen	12.00		do
Do other	"	*		do
Labels of metal, silver-plated, for bottles	"	2.25	35	p.c. *ad val.*
Boxes of tin, painted, up to 23 centimetres diameter, in sets of six	Set	2.00		do
Basins tin, painted, 30 to 41 cent., diam.	Dozen	5.00		do
Do com., brass, painted, 30 to 41 cent. diam.	Dozen	7.00	25	p.c. *ad val.*
Tweezers of iron wire	"	0.50		do
Sugar-tongs of German silver	"	4.00		do
Nut-crackers of metal, silver-plated, common	"	12.00	35	do
Iron pincers for clipping metal threads	"	2.00	15	do
Tongs of iron, for forges	Kilog.	0.20		do
Do for domestic use	"	0.16	25	do
Forks, table, of metal, silver-plated, common	Dozen	5.00	35	do
Do dessert	"	4.00		do
Do small table	"	3.00		do
Do other kinds, not otherwise distinguished		—	25	p.c. *ad val.*
Tea kettles of white metal, silver-plated, with lamp, common	Each	10.00	35	do
Do of bronze or copper, common, from 1 to 3½ litres in capacity	Dozen	12.00	25	do
Do bronze, handles of wood, porcelain or crystal	Dozen	16.00		do
Do of cast iron, tinned	Kilog.	0.20		do
Do do with interior of porcelain	"	0.40		do
Do brass, com., 6 to 18 decilitres in capacity	Dozen	0.50		do
Teapots of brass, polished, common, from 6 to 18 decilitres in capacity	Dozen	7.00		do
Do common, with parts of Britannia metal	"	12.00		do
Kettle, cast iron, bronze top, for domestic use	Each	3.00		do
Teapots of Britannia metal, common	"	2.00		do
Do of white metal, silver-plated, common	"	7.00	35	do

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Articles, etc.		Valuation.	Duty.	
		Ps. Cs.		
Scissors:				
For shearing, with one eyelet ring	Dozen	2.50	15	p.c. *ad val.*
Of cast iron, common, up to 30 centimetres long, for tailors	Dozen	12.00		do
Of every other kind		—	25	do
Printing-type of antimony, tin, lead and zinc, small, common	Kilog.	1.50		Free
Corkscrews of every kind		—	25	p.c. *ad val.*
Door latches of bronze or nickel, silver-plated	Dozen	12.00	35	do
Do of white metal, silver-plated	"	20.00		do
Do other kinds, not otherwise mentioned		—	25	do
Screws:				
Of wood, for carpenters' benches	Dozen	5.00	15	do
Of iron	"	10.00		do
Do large, for blacksmiths or silversmiths	Kilog.	0.20		do
Do hand, for blacksmiths or silversmiths		*		do
Of other kinds		—	25	do
Mousetraps		—		do
Toy trumpets of iron	Gross	0.50	35	do
Pistol holsters of white or yellow metal, per pair	Dozen	2.50	25	do
Nuts of iron, with or without screws	Kilog.	0.13		do
Do do galvanized	"	0.18		do
Ribs of steel or iron, prepared for umbrellas	"	0.30		do
Small beams of wrought iron for bridges and buildings, gross weight	Kilog.	0.15		do
Hinges of wrought or cast iron	"	0.20		do
Tinder-boxes, silver-plated, with steel	Dozen	10.00	35	do
Anvils	Kilog.	0.14	15	do
Zinc:				
In bars	"	0.13		Free
In sheets or plates	"	0.16	15	p.c. *ad val.*
Manufactured in spouting, tubes, or reservoirs for buildings	Kilog.	0.26		25
Drugs, patent medicines and chemical productions:				
Sulphate of copper	Kilog.	0.15	15	p.c. *ad val.*
Pastilles, not medicinal, in glasses or tins, including the receptacle	Kilog.	0.65	35	do
Leeches	Hundred	6.00		Free
Of every other kind		—	25	p.c. *ad val.*

Hayti.—A treaty concluded at Port-au-Prince between this republic and the United States guarantees the privileges of the most favored nation to the vessels of either of the contracting parties, at the ports of the other, in matters of commerce and navigation. Whatever kind of produce or manufacture of any foreign country may be imported into Hayti in her own vessels, may also be imported in those of the United States, and no higher duties upon tonnage or cargo shall be levied than are demanded from the vessels of any other nation. In other words, perfect equality in regard to all exports, duties, and drawbacks, was fully established, the coasting trade being, however, reserved by each contracting party for vessels of her own nationality. No higher or other duties on the importation or exportation of any article, the growth or manufacture of either country, or the product of her fisheries, are to be levied than are payable on like articles, the growth or manufacture of any other foreign country.

The Dominican republic, occupying the eastern end of the island of San Domingo, enjoys, by treaty with the United States, the same privileges at the ports of the latter that Hayti is en-

*The value to be fixed by the authorities after customs inspection.

titled to. On the other hand the United States vessels have also all the privileges of the most favored nation at Dominican ports.

Upon the arrival of a foreign vessel at a Haytian port, the master must present himself, accompanied by an interpreter, at the custom house, and declare before the proper officer, whether he intends to discharge his cargo or not; in the former case his invoices, if not made out in French, will be translated, and the goods they refer to will be verified in the presence of their consignees, who are allowed to land and store them, if they should desire to use the government's warehouses, paying 1 per cent. a year. No allowance is ever made for waste or loss. Manifests of cargo for Hayti must state the number of trunks, boxes, bales, packages, or casks, together with the numbers, marks, counter-marks, and contents of each; lengths, weights and measurements of wood and planks. In other words, a distinct description of the nature and quantity of all goods, together with the value of each invoice. Quantities must be written out in letters. The regular charges made by the Haytian government against vessels are as follows: tonnage dues, $1 per ton, if the vessel belongs to a nation having a reciprocal treaty, otherwise, $1.50; board of health's visits, $5; bill of health, $1; entry fees, 6 cents per ton; anchorage dues, 6 cents per ton; stage hire, $2 per day; wharfage, 1 per cent. on the total dues payable by the vessel. In addition to the above, vessels pay at Port-au-Prince, if a foreign ship intended to load on the coast, 50 cents in currency per ton; interpreter's fee, $4; telegraph (to support the line), $2; water is worth $1 per cask. At Cape Haytien, pilotage in and out, $26; other government fees, $22; the private charges, say for a vessel of 350 tons, are, discharging 140 tons of ballast, $125; loading 800,000 pounds of mahogany, $240; lighterage, $144; sawing the wood, $144; stowing the cargo, 400 tons at 20 cents, $80; labor on board, $35; besides her consul's fees. Fresh provisions and fruits are plentiful and cheap. Wood and water can be had, but the latter is scarce in the summer. At Jacmel the pilotage inward varies from $80 (Haytian currency) for a vessel under 300 tons, to $120 for those of higher tonnage; pilotage outward is $10 for a vessel under 100 tons; $20 for one from 100 to 200 tons, and $10 for every 100 tons additional, till it reaches $40 for a vessel measuring above 300 tons (Haytian currency); interpreter's fee, from $25 to $100 in Haytian currency; anchorage dues: a vessel entering the port and leaving it again within 24 hours, pays $25 (Spanish). For the privilege of going to a second port in Hayti, vessels pay from $200 to $300 Haytian currency; the currency is paper money. At Aux Cayes, the pilotage inward and outward is $5; stevedores charge 20 cents per ton for stowing cargo. At Cabarete the expenses of a vessel measuring 180 tons, in ballast, inward, and taking away a cargo of mahogany, would be $400.

The port charges levied on vessels in the Dominican republic are the following: tonnage dues, $1 per register ton; anchorage fees, 6 cents per ton; entry at custom house, 6 cents per ton; stamped paper, $9; vessels loading at more than one port pay the tonnage money again at each port. At Santo Domingo, the pilotage and light dues are 6 cents per ton each; to which must be added $4 for interpreter's fees; $2 for the health officer's, and $4 for signal. At Samaná bay, a ship's dues per American ton vary from 6 cents for a vessel of 15 tons or less, to 30 cents for one of more than 100 tons, provided she discharges or receives cargo; harbor master's fees, from 3 to 5 cents per ton; port dues vary from 12 cents for a boat to $2.50 for a ship; half of the latter for a brig; 60 cents for a topsail schooner; health officer's fee from $3 to $5; pilotage, when a pilot is employed, per foot inward, $1.25, and 75 cents per foot outward. At Puerto Plata a vessel of 135 tons register (or 162 Dominican tons), loading mahogany, will have to pay for all expenses about $285. At Aguin the charges are, tonnage, $1 per register ton, and 10 per cent. additional; pilotage, $1.50; interpreter, $2.50; collector of the port, $5. The cargo is carried off to the vessels in lighters; the expense of lighterage is from 15 to 25 cents per ton.

Spanish vessels arriving at ports of the United States from ports of Cuba or Porto Rico are no longer subject to discriminating tonnage duties. But merchandise coming to the United States in Spanish bottoms from those islands must pay an additional import of 10 per cent. ad valorem, while that which Spanish vessels bring from other parts of the Spanish dominions is exempt from discrimination. In case of a Spanish vessel leaving a port of

Spain for a port in Cuba or Porto Rico, and sailing again from the latter without breaking bulk or taking in any cargo, her voyage will, under the circumstances, be considered a continuous one; and neither she nor her cargo will be subjected to other or higher tonnage or import duties than if she had come direct from Spain to the United States.

Port regulations: The hours during which vessels are permitted to go to an anchorage in the harbor of Habana are those between sunrise and sunset. Should bad weather or other circumstances render it necessary to enter the port after sunset, the vessel will not be permitted to pass the guard-ship. Shipmasters are warned to hold no communication with persons from the shore, or from other vessels, until the authorities have made their visits. The first visit will be that of the health officer; the second one is from the representative of the civil government, and the third is from the custom house official. If a vessel have a contagious or infectious disease on board, she will be sent into quarantine or placed under observation, as the board of health may deem expedient. The visits being over, a copy of the port regulations in several languages, (the English being one) will be left with the master for his guidance during his stay in port. He is expected to return the document before he leaves the port. Appended to it will be found the general regulations in force at all the ports of the island of Cuba.

Every captain or supercargo of a vessel arriving from a foreign port, must, upon being visited by the health officer, produce a statement of his cargo, certified by the Spanish consul, and also the general manifests of the aforesaid cargo, without any correction, which documents shall contain the name of the captain and vessel, her nationality, tonnage and port of departure; as well as the number of bales, packages and every article composing the cargo, with the respective marks, numbers and class of merchandise, contents of packages, their gross weight in kilograms (each kilogram is equal to about 2.20 English pounds); and must state besides whether the goods are for consumption, bond, or transit. It is absolutely forbidden to make any addition or alteration to the manifest or statement of cargo, nor shall it contain any merchandise consigned to order, and any difference between the statement of the cargo and manifest will entail the penalty prescribed in the regulations.

If the whole or part of the cargo is composed of iron in bars or plates, metal in pigs or ingots, timber, jerked beef, salt, cacao or any other article shipped in bulk, they are to be manifested by decimal measure or weight, adding at foot of each manifest the stores, ammunition, arms, tools, instruments and all other ship's utensils, as well as the quantity of coal on board, should the vessel be a steamer, and merchandise which the ship's crew may have, without being on the manifest, to the value of $100 per each individual. If the cargo comes from a port at which no Spanish consular officer resides, or if the residence be more than 30 kilometres distant from the place of sailing, the captain or supercargo will not be required to produce the statement of cargo aforesaid. Vessels entering in distress must produce manifests of their cargoes, the same as others engaged in the import trade. Vessels entering in ballast are bound by the same rules and regulations to produce the cargo statement certified by the Spanish consul, and the manifest. If owing to stress of weather the captain had to throw overboard, or had lost a portion of his cargo at sea, he must state on his manifest the quantity of cargo lost, specifying the number of packages, class and kind of goods; he must also produce at the custom house his log-book to establish the truth of his statement. The failure to produce at the proper time the statement with the Spanish consul's certificate, as required by law, the vessel being in ballast, entails a fine of $200; if the manifest is not en régle, the fine is $15; if not certified by the Spanish consul, the fine is $100. If a captain, when requested by the superior custom house official, does not forthwith produce the statement of the cargo and the manifest, or if these are not made out according to law, he will be subject to a fine of $500, unless the vessel entered in distress. Corrections, alterations or erasures in the said documents render captains or supercargoes liable to prosecution for forgery. The documents must be produced at every port or anchorage of the islands which a vessel may enter, even in distress; the custom house officials will take and keep a copy of them, and return the originals to the captain.

All packages and other goods omitted in the statement of the cargo, or in the manifest, will be confiscated, and the captain fined double their value, should the amount of duties to be paid on the contents not exceed $400; but if

the duties should exceed the above sum, and the goods be the property of the owner, consignee, captain or supercargo of the vessel, then, instead of a fine, the vessel, together with its freight and other profits, will be confiscated. When a vessel is entirely unloaded, if one or more packages of the quantity manifested should be missing, no invoice having been previously delivered of the contents, the captain or supercargo will be held to have defrauded the custom house, and fined $200 for each missing package. If the owner or consignee produces within 48 hours the bill of lading or account of said goods, he will not incur the penalty, and the goods will be delivered to him; but the captain or supercargo will be required to pay a fine equal to the value of the goods so omitted in the manifest.

Nothing can be discharged, nor transferred from one vessel to another, without custom house permits. Any violation of these rules will make the captain or supercargo liable to the legal penalty. If the captain or supercargo is unable to pay the fines incurred, then the vessel will be held responsible.

Passengers' luggage must be presented for inspection in the custom house depot; if merchandise be found therein not exceeding $100 in value, the passenger must pay the duty on such goods; if it exceeds $100 in value, and is less than $200, he must pay double duty; if it exceeds $200, the merchandise is liable to seizure, unless the passenger had, in any of the last two cases, previously presented a note of them, in which case he will be called upon to pay according to tariff. The custom house will not cause a manifest to be translated, nor permits to be issued, until the captain has produced his vessel's register.

The following regulations were subsequently established by the intendant-general: 1st. A fine of 2 per cent. additional on the value of the contents of every bale or package containing two or more parcels, which exceed 2 cubic metres in dimension, or 1,000 kilograms in weight. 2d. From and after January 1st, 1873, owners or consignees of merchandise are bound to express in the note for entry, the gross weight of each package, and the number of smaller packages each may contain, besides adding immediately below the declaration, by sections of the tariff as heretofore, of the class, quality, and quantity of the contents of all packages. The infraction of this rule will entail a penalty of 2 per cent. on the value of the package. 3d. The differences in gross weight between that declared in the note of entry, and the returns of the inspection, when the discrepancy exceeds 4 per cent. in excess or deficiency, a fine will be imposed of $1 for every 5 kilograms. 4th. A separate note of entry must be presented for each item of a vessel's manifest. Every note of entry, which fails to comprise in its totality a single item of a manifest shall be considered as not presented.

Form of a Spanish Manifest.

REPORT AND MANIFEST of the cargo laden at the port of....., on board the....., ...master, bound for..... ..... tons, ... crew, ... passengers, ... 18...

Marks	Numbers	Number of Packages	Packages and Contents	Quantity	Shippers	Consignees	Value

Tonnage tax collected from Spanish vessels or others enjoying equal privileges in force since May 15th, 1869, the currency being the peso or dollar of Cuba: 1st. Arriving and departing with full cargoes, $1.85 cents per ton. 2d. Arriving with full cargoes and leaving in ballast, $1.80 cents per ton. 3d. Arriving in ballast and leaving with full cargoes, $1.00 per ton. 4th. When bringing coal to the extent or in excess of their register tonnage, although they may have other cargo, they are so exempt from the tax. Bringing coal only, in less quantity than their register tonnage, they pay for each ton short, 62½ cents. Bringing coal, in less quantity than their register tonnage, and hav-

ing other merchandise, pay for each ton of coal 78 cents, and for each ton not occupied with coal $1.35 cents. 5th. Arriving in ballast, and leaving fully loaded with molasses, they pay for each ton measurement 87½ cents. 6th. Arriving in full ballast, and leaving with products of the island, they pay for each ton of cargo $1.00, and for each ton unoccupied 5 cents. 7th. Arriving and departing in ballast, 5 cents per ton. 8th. Vessels which enter in distress, per ton, 5 cents. 9th. Mail steamers making periodical voyages to ports of the island are exempted from the payment of any tax, provided that they do not bring in or take away more than six tons of cargo. 10th. Mail steamers that bring or take away more than 6 tons of cargo pay, for each ton over 6, 62½ cents. 11th. Spanish mail steamers pay in accordance with their contents. 12th. Steamers not embraced in articles 9–11 pay the same as sailing vessels, the space occupied by the machinery and coal-bunkers being deducted from the gross tonnage in the assessment of the tax. 13th. Steamers bringing cargoes of live bovine cattle and departing in ballast, pay 5 cents per ton only.

Port charges at Habana: Tonnage dues as above; pilotage, varying inward, from $14 for a vessel of 80 tons to $23.50 for one of 500 tons and upward; for outward, from $8 for a vessel of 80 tons, to $17.50 for one of 500 tons and upward; charge for pilot boat (small) $6; harbor pilotage, two-thirds of outward rates. Mooring charges; From 101 to 150 tons, $3; from 151 to 200 tons, $3.25; and 25 cts. additional for each 100 tons over 200. Custom-house fees: $10 and $15 inward; $25 outward. Tugboat charges $10 to $45 (as per agreement); harbor towage, $10 to $20. Ballast, discharging per ton, 50 cents; loading, for earth $1; for blue stone $1.50; white stone $1.75 per ton. Interpreter's fees, $4. Discharging coal by steam, 20 cts. per ton; 70 tons usually discharged per day. Health visits, $2. Lighterage: sugar 50 cents per hhd; 11 cents per box or bag. Vessels bound to Europe pay the lighterage; when bound to the United States the cargo pays it. Stowing sugar, 10 cents per box; 87½ cents per hogshead. Cargo to be hoisted on board by the vessel's crew. Labor and board of men, $2.50 per day. Stamps on charter party, from $1 for $250 to $500, to $25 for $9,850. Water, 1¼ cents per gallon. Stores are from 50 to 75 per cent. higher than in the United States. Commissions: for collecting freight, 2½ cents; on disbursements, 2½ per cent.; on procuring freight, 5 per cent. Following are the charges at other ports of Cuba: At Cárdenas: government fees, $80.50; pilotage, inward and outward, $4.25 per foot draft; tonnage dues, as per schedule; government tax on outward disbursements, 1 per cent.; on outward freight, 1 per cent.; consul's fees and bill of health, about $10; charter party stamps, $7.50; lighterage, 50 cents per hogshead, payable by the merchandise, unless the vessel goes to the lower bay, in which case she pays it. The merchant's commissions are: on inward disbursements, 2½ per cent.; on outward disbursements, 2 per cent.; on inward freight collected, 2½ per cent.; on outward freight, 1 per cent. At Sagua la Grande: the rules of the port are very explicit and strictly observed; pecuniary penalties are imposed for even the most trifling violation of them. The port charges are: pilotage, vessels of 250 tons, $32; of 400 tons, $42; to and from wharf, for a vessel of 250 tons, $10.66; for one of 400 tons, $14; larger or smaller vessels pay in proportion. Tonnage and other government dues as in Habana: interpreter, $4; stamp paper and registering, $9.50; note of entry, $4.25; clearance, $8.50; wharfage, 1¼ cents per ton per day; bill of health, $2.50; noting protest, $2; extending protest, $3; ballast master, $2; discharging ballast, $1 per ton; labor, $3 per day; stevedore, $5 per day. The disbursements of a vessel of 400 tons arriving in ballast, and loading with sugar, are about $620; those of one of 250 tons, arriving in ballast, and loading with molasses, about $250. At Caibarien: pilotage is compulsory, both in entering and leaving port; the rates are, for sailing vessels not drawing over 9 Spanish feet, inside or Caibarien, $15, and for each additional foot $3; outside or Cayo Francés, $7, and for each additional foot $1.50; steam vessels of light draft pay a little less; for mooring from one place to another inside of the anchorage, either at Caibarien or Cayo Francés, $4; mooring from the anchorage at Caibarien to Tesico creek, Guani, or Canal de los Barcos, $8. Translator's fees, $2; interpreters charge $4; custom house fees, inward, $6.38; outward, $10.62, besides tonnage dues; other expenses: loading molasses, 30 cents per hogshead; sugar, 30 cents per hogshead, and 10 cents per box; lightering and discharging, $1 per ton; the cargo is brought alongside at the shipper's expense, but ballast is usually discharged at the vessel's expense. The merchant's commissions are: for collecting freight, 2½ per cent.; on disbursements, 2½ per cent.; on procuring freight, 5 per cent.; on vessels arriving in distress, and reshipping their cargoes, 5 per cent. At Manzanillo common labor is worth $1.50 per day. The ordinary expenses of a vessel of 300 tons would probably be $600; at Cienfuegos, for a vessel of 368

tons, the expenses would be about as follows: custom house fees, $5.50; pilotage in and out, $88.25; interpreter, $4; harbor master, $2½; tonnage out, $50; light dues, $24; reporting and permit, $1.25; charter party and stamps, $10; tonnage dues, $496; labor in loading, $50; at Casilda: pilotage for a bark, $32; for a brig or schooner, $26; three-masted schooner, $32; for shifting berth, $8; tonnage dues, the same as in other ports of the island; custom house fees, $8; interpreter, $4; bill of health, $2.50; private charges, discharging ballast, 75 cents per ton; lighterage on coal, $1 per ton; labor, $1.50: at Santiago de Cuba: pilotage for a three-masted vessel, $32; for a two-masted one, $20; for one-masted, $10; mooring in the harbor, $8; hauling to or from the wharf, $4; mooring to the lazaretto anchorage, vessels of three and two masts, $16; one mast, $6; no vessels allowed to move in the harbor without a pilot; wharfage, $5 per day; tonnage dues the same as in Habana; custom house, $10; bill of health, $2.50; health dues, $4.25; light dues, $2.50; interpreter's fees, $4.25; discharging ballast, 50 cents per ton; stevedore, 15 cents per hogshead for superintending; labor, $2 per day; commissions, the same as at other places.

Cuban Tariff.

Rates of Duty.

		Spanish dols.
Liquors:		
Brandy, rum, etc., in casks and demijohns	100 litres	11.500
Do do in bottles, flasks, etc	do	15.000
Ale and porter in casks	do	3.650
Do do in bottles	do	8.350
Vinegar, in casks and demijohns	do	2.050
Do in bottles	do	6.350
Spices:		
Aniseed, cumin, red pepper, dried peppers, etc	100 kilos.	4.700
Saffron, dry or in oil	1 kilog.	6.300
Cinnamon (Ceylon) and nutmegs	do	0.631
Do (other)	do	0.322
Cloves and white pepper	do	0.107
Fish:		
Ordinary, smoked, dried, salted, or pickled, Halifax cod, etc., (weight of brine exclusive)	100 kilos.	1.800
Superior, as Scotch; sea fish of all kinds (weight of pickle or of jar inclusive)	do	2.850
Rice, clean	do	1.950
Do unshelled	do	0.950
Biscuit hard	do	3.150
Do fancy (including tins)	do	6.300
Butter, including weight of barrels or glass bottles, but *not* tins	do	11.350
Cheese	do	18.900
Milk, condensed, and other similar food (bottles and cases included)	1 kilog.	0.158
Tea	do	0.630
Wood, pine, cut or sawn	1,000 sq. ft.	4.800
Wood, walnut, cut or sawn	do	12.000
Wood, grooved, planed, etc., 25 per cent. extra.		
Carriages, coaches, landaus, etc., 4 wheels, 4 seats	Each	192.000
Do Victorias, 4 wheels, 2 seats	do	144.000
Do tilburys, etc., 1 or 2 seats	do	60.000
Do wheels, shafts, etc	*ad val.*	24 pr. ct.
Flintware of all kinds not specified	100 kilos.	3.150
Articles of white porcelain	do	7.550
Do do China gilt, etc	1 kilog.	0.315
Do fancy China, Sèvres, etc	do	0.435
Fancy articles, bugles, beads, wire, etc	do	0.218
Do fans of all kinds	*ad val.*	29 pr. ct.
Starch	100 kilos.	5.050
Whalebone, raw	1 kilog.	0.290
Do cut and prepared, but unpolished	do	0.435
Do polished and finished, for corsets, etc	do	0.870
Varnish, ordinary, for furniture	100 kilos.	14.250
Do fine, for pictures	*ad val.*	29 pr. ct.
Cardboard, in sheets, and so-called "straw" paper	100 kilos.	1.800

		Spanish dols.
Cardboard, manufactured, in hat-boxes, etc., printed or lithographed for advertising	1 kilog.	0.120
Cardboard pill-boxes, etc	do	0.240
Do masks, etc	do	0.580
Sperm candles	do	0.141
Matches of all kinds	do	0.600
India-rubber, sheets, belting, hose, washers, etc	do	0.261
Do shoes, gaiters, seats, life-belts, bags, etc	do	0.360
Do waterproof, on cotton	do	0.370
Do do on wool	do	1.305
Do do on silk	do	2.610
Vulcanized combs, pen-holders, etc	do	1.450
Gutta-percha catheters, syringes, etc	do	2.320
Paper:		
Writing, drawing, cigarette, etc	100 kilos.	18.050
Vegetable, ordinary gilt or silver	1 kilog.	0.631
Copying, blotting, colored, etc	do	0.261
Fine, gilt or silver	do	2.522
White, common printing	100 kilos.	8.150
Superior white or colored; suitable for wrappers	do	9.400
Fine brown	do	4.200
Gray tarred	do	2.850
Light brown	do	9.400
Wall, without gilt or nap	1 kilog.	0.116
Gilt, silvered and velveted	do	0.232
Lead, tin, rag, and sand	do	0.052
Prepared for any special use, but without print or lithograph, as envelopes, cigarette books, will pay as above with 50 per cent. additional.		
Printed or lithographed papers, books, maps, music	*ad val.*	29 per ct.
Printed or lithographed papers, books, maps, music, with one color only, in labels, etc	1 kilog.	0.145
Chromo-lithographed	do	0.290
Printed, lithographed, or engraved, painted or not	do	0.435
Books, blank or ruled, bound or not, of all sorts and sizes, will pay the duty on the paper of which they are made, with 50 per cent. additional.		
Perfumery:		
Oils, pomades, cosmetics, inclusive of inside packages	do	0.182
Toilet waters or extracts	do	0.116
Soap, when packed separately	do	0.421
Soap, without wrappers, or three pieces at least together, or common, wrapped separately, but without mark or seal to increase its value	1 kilog.	0.131
Powders or paste for the teeth or skin	do	0.638
Rice powder, egg and shell cascarillas, and other powders for the complexion, packing inclusive	do	0.131
Metals:		
Steel, rough or in bars or plates, of all sizes	100 kilos.	4.200
Do in pieces, for watchmakers	*ad val.*	8 per ct.
Files, rasps, and other similar tools	1 kilog.	0.120
Iron tools, edged with steel, to be considered as iron.		
Copper, bronze, brass, yellow metal, in sheets	100 kilos.	10.950
Copper, bronze, brass, yellow metal, in sheets, polished, wire, bars, nails, etc	do	13.650
Door knockers, bells, beds, cots, chains, taps, sieves, screws, and other similar articles, though combined with iron	do	6.400
Pincers, rings, small bells, curtain-bands, buttons, locks, padlocks, spittoons, clothes-hooks, door chains, tubes, pins, brooches, hooks-and-eyes, bodkins, and other similar articles, although combined with iron	do	23.400
Cruets, curb-chains, keyholes, bar-pumps, dog-collars, lamps of all kinds, springs for tables, thimbles, and other similar articles, although combined with iron or steel	1 kilog.	0.480
Tin in ingots, bars or sheets	100 kilos.	10.450
Iron, pig	do	0.261

Metal:		Spanish dols.
Iron furnaces, plates, boilers, grates, small stoves, doors and hatches of furnaces, tubes and similar articles	1 kilog.	1.550
Iron, wrought, tinned, enamelled, galvanized, or not, saucepans, coffee-pots, stewpans, strainers, buckets, spoons, ladles, skimmers, soup-kettles, kettles, basins, fish-kettles, frying-pans, coffee-roasters, and similar articles	100 kilos.	4.200
Do cast, in screws, balls, balconies, portable stoves, columns, tanks, stair-cases, etc., sarcophagi, garden seats, and other similar articles	do	2.100
Do wrought, do do	do	3.150
Do cast or wrought nails	do	3.000
Do wire, anchors, kedges, windlass, rails, anvils, mauls, and other similar articles	do	2.100
Do presses, for copying letters	1 kilog.	0.052
Do wrought, small bars, tree nails, squares, wheel tires, tin sheet, hoop iron, plates or sheets for constructing tanks, clarifiers, roofs, rooms, platforms, and other similar articles	100 kilos	1.800
Do do galvanized	do	3.150
Do in plates, cut or prepared for sugar moulds	do	0.350
Do padlocks, locks, latches, although containing portions of other metal	do	7.300
Do wrought and alloyed (even when cast iron enters into the manufacture, or without alloy), bits, nosebands, stirrups of ordinary class or unpolished, although they may have plates of other common metal	do	15.650
Do do polished, bronzed, gilt, plated with silver or alloy	do	56.750
Do hooked nails, not for railways, iron trunk-handles, knockers, washers, nails or screws with or without rings, large or chain hooks, harpoons, heads for goads, rollers, hinges, horseshoes, door-bolts, bolts, pulleys, linchpins, handles rings, stirrups, hooks, clamps, buckles, springs, braces, and screws for carriage making, saddlery, and similar articles	do	3.150
Do do bronzed, gilt, plated with silver or alloy, ordinary	do	13.650
Do do do superior	1 kilog	0.504
Do chains of a quarter of an inch and under, measuring from the outside of the link	do	0.047
Do above one quarter of an inch	100 kilos	2.600
Do safes and similar articles not distinguished	*ad val* 29 pr ct.	
Do beds and cots, although ornamented with metal, weight of all the bars inclusive	100 kilos	5.200
Do with coat of yellow metal, pays extra duty of 100 p. c.		
Do sieves and rat-traps, wood used in construc., inclusive	1 kilog	0.073
Do meat covers or safes	do	0.221
Do handmills for grinding coffee or spice, covered with iron or wood	do	0.096
Do fixed mills, of all sizes, with or without fly-wheels, to grind coffee or shell corn	100 kilos	4.800
Do wire netting	do	4.700
Do screws for hinges (and wood) up to 3 inches in length	do	7.300
Do more than 3 inches	do	3.150
Do hairpins, varnished or not	1 kilog	0 048
Do hairpins, with or without steel points	1 kilog	0.174
Do packing and trussing needles, punches	do	0.963
Do shoe makers' awls	do	0.247
Do thimbles (and steel)	do	0.218
Do sail needles, of all qualities	do	0.725
Do sewing needles (English)	do	4.850
Do steel pens	do	1.813
Do implements, ordinary agricultural, ploughshares, picks, spades, mattocks, hoes, drills, &c	100 kilos	2.100
Do other kinds, as machetes, and the German and Belgian kinds, with three grooves, with or without sheaths	1 kilog	0.072
Do superior kinds, as the machete for cane-cutting	do	0.120
Do axes, hatchets, adzes, trowels, &c	do	0.108
Iron hammers, for masons, carpenters, coopers, shoe makers, stone masons; pincers; shovels, wire cutters, coopers' punches, and similar articles	100 kilos	5.650

		Spanish dols.
Iron knives, for carpenters; coopers, curriers; planes and other similar tools, including the wooden handles or setting	1 kilog	0.088
Iron knives, carving, chisels, compasses, sickles, pincers, screw-drivers, hollow punches, spanners, hand-vises, squares, fleames for farriers, caulking-irons, loose blades for planes of all classes, and other similar implements,	do	0.144
Iron knives, with or without forks, and carving knives, with handles of horn or bone, whalebone, iron or wood	100 kilos	18.000
Iron knives, with handles of ivory, tortoise-shell, mother-of-pearl, metal gilt or plated	1 kilog	0.600
Iron knives, penknives and razors	*ad val.*	29 pr. ct.
Iron screw augers without handles, and common augers with wooden handles	1 kilog	0.120
Do with handles, centre bits, with or without augers, and augers for same	do	0.331
Iron saws, without frame and pit	do	0.108
Iron hand-saws of all classes, circular and band saws for machines	do	0.228
Iron screw plates	do	0.435
Tools:		
Cast-iron, shears of all sizes, and fixed scissors for tin workers	do	0.131
Do wrought iron	do	0.480
Scissors of steel or polished iron, assorted, common, for needlework	do	2.522
Do do superior	do	4.413
Do for tailors and gardeners	do	1.044
Horse-clippers, etc	do	0.300
Weapons and fire-arms	*ad val*	29 pr. ct.
Scales and steelyards	do	24 do
Tin, in plates and sheets	100 kilos	3.650
Tin, manufactured into vessels, white or painted, as oil cans, flasks, sugar-tins, snuffers, jugs, baths, moulds, reflectors, etc	do	13.050
Pewter, manufactured in all forms	1 kilog	0.216
Other alloys and base metal, in all forms	*ad val*	29 pr. ct.
Lead, pig, sheet, tubing, bullets, ammunition	100 kilos	2.850
Lead toys, bottle capsules, etc	1 kilog	0.131
Zinc and calamine, ingots	100 kilos	2.600
Zinc and calamine, sheets and leaf	do	3.400
Zinc and calamine, nails, screws, etc	do	5.200
Zinc and calamine, lamps, hanging or standing, and printing type	do	22.800
Textile fabrics :		
Cotton:		
Twisted wicks	do	7.800
Lamp wicks	1 kilog	0.522
Buckram (for tailors)	do	0.334
Sewing thread, in balls or skeins, colored or white, on reels, weight of reels and boxes inclusive	do	0.360
Waste (for cleaning machinery)	100 kilos	7.300
Lace work, on wood	1 kilog	0.760
Lace work, on iron or metal, or plaits or twists, with metal tags for laces	do	0.350
Tissues:		
(1.) Plain, bleached, or dyed, as calico, nankeen, etc.		
Up to 10 threads	100 kilos	15.000
11 to 16 do	do	21.000
17 to 22 do	1 kilog	0.350
22 to 28 do	do	1.500
29 to 34 do	do	2.000
35 threads and upwards	do	2.500
(2.) Plain, stamped, striped with threads, dyed before weaving, as Indian, etc.		
Up to 12 threads	100 kilos	26.000
13 to 16 threads	100 kilos	31.500
17 to 19 do	1 kilog	0.505
20 to 22 do	do	0.650
23 etc., *see* (1.)		

		Spanish dols.
Tissues:		
(3) Light, fine or common, also open woven textures, and all which contain 23 threads and upwards, smooth, plain, white, stamped or dyed, as muslins, jaconet lining, etc.		
Up to 8 threads	100 kilos	35.000
9 to 12 do	do	60.000
13 to 16 do	do	100.000
17 to 22 do	1 kilog	1.200
23 etc., *see* (1.)		
The above articles, embroidered by hand or machines or ornamented in addition, will be subject to an extra 20 per cent. upon their original duties.		
Embroidered with silk or wool	*ad val*	20 pr. ct.
(4.) Tulle, plain, embroidered, white or colored.		
Up to 5 threads	1 kilog	1.000
6 and upwards	do	3.000
(5.) Lace, in strips	do	0.900
Lace, lightest sort, in strips, and insertions and points, plain, worked, or embroidered, white or colored	do	2.000
Lace net work, shawls, veils, etc	do	1.000
(6.) Tissues, quilted, and piqué, white or colored, plain or worked	do	1.000
Tissues, printed, twilled, or colored, as canvas, duck, fire-hose, lamp wicks, etc	100 kilos	20.000
Tissues, superior, as drills, etc., flowered or damasked	do	35.000
(7.) Hosiery, ribbed vests, socks, stockings, gloves, drawers, caps, etc	do	180.000
(8.) "Cardada" napped. Velvet, plush and carpeting—		
Woolly goods, as shawls, blankets, etc., white or colored	do	20.000
Velveteen, etc., plain or worked	1 kilog	0.600
Plush or shag, cut; carpets in pieces, shawls, kerchiefs, etc	do	0.725
Do do uncut, shawls or towels, (called "Turkish")	do	0.450
(9.) Tape, narrow, white or colored	do	0.300
Tape, other kinds, plain or worked, white or colored, and ribbon of cotton velvet	do	1.000
(10.) Handkerchiefs, in pieces or loose, with or without fringe, but without handwork, will pay duty under one of the above grades.		
Handkerchiefs, hem-stitched, or with any handwork, will pay 20 per cent. additional.		
Handkerchiefs hemmed or with insertions		
Up to 17 threads	1 kilog	1.360
18 to 20 do	do	1.900
21 to 22 do	do	2.550
23 and upwards	do	3.800
(11) Ready-made clothing in general will pay duty on materials of which composed, with add'n of 100 p. c.		
Umbrellas and sunshades	Per doz	1.200
(12) Elastic	1 kilog	0.800
Hemp, flax and jute:		
In tow or raw, tarred or not	100 kilos	2.500
Tackle, tarred or not	do	6.250
Cord	1 kilog	0.130
Packing thread	do	0.065
Coarse hemp cord and spun yarn, drawn yarn cobblers' thread	do	0.180
Rope, bleached or tanned	do	0.265
Small wares	do	0. 87
Tissues:		
(1) Flax, raw or half-bleached, although with colored stripes, plain, smooth or cross-woven, as canvas, sackcloth, sailcloth, manheen and webbing up to 5 threads	100 kilos	5.000
Tissues as hollands, Irish, etc., 6 to 10 threads	do	15.000
Tissues, except the half-bleached, 11 to 16 threads	do	30.000
Tissues, except half-bleached, 17 threads	1 kilog	0.500

		Spanish dols.
Tissues:		
(2) Raw, although they have colored stripes, cross-woven, or twilled as drills	100 kilos	30.000
(3) Smooth, plain, white, striped, or dyed—		
Up to 9 threads	do	22.500
10 to 12 do	do	32.500
13 to 16 do	do	50.000
17 to 20 do	1 kilog	0.800
21 to 23 do	do	1.000
24 to 27 do	do	1.830
28 to 30 do	do	2.300
31 and upwards	do	3.000
(4) Cross-woven or twilled, damasked, embroidered, stamped, white, as drill, etc., shawls, napkins, towels	100 kilos	60.000
(5) Braid, strapping girths, according to texture		
(6) Ribbed vests, drawers, socks, gloves, ordinary, sewn	1 kilog	0.500
Fine, unsewn	do	2.500
(7) Tulle, lace, and all embroidered goods	*ad. val.*	29 pr ct.
Woollens:		
Alpaca, Orleans, etc., pure wool:		
10 threads	1 kilog	0.725
11 to 16 threads	do	1.305
17 to 20 do	do	1.740
21 and upwards	do	2.610
Gauze, barège, etc	do	3.850
Plain stuffs, cross-woven or twilled, as merino, cashmere, single or double, etc	do	1.740
Do with cotton, in the warp	do	1.000
Do with silk in the warp	do	2.610
Do with hair on one or both sides' as blankets, baize, caps, etc	100 kilos	29.000
Do with warp of cotton, hemp, flax, or jute, or made of waste wool	do	20.500
Routh felts, for horse-cloths, etc	do	12.500
Ordinary double cloth, pure wool, known as pilot, beaver, etc	1 kilog	0.850
Ordinary double cloth, with cotton warp	do	0.410
Cloth for ladies' wear, cashmere, woollen, plush, etc	100 kilos	200.000
Do with a cotton warp	do	75.000
Damask of pure wool	1 kilog	0.870
"Flemish" and flannel	do	0.725
Do with cotton or linen in the warp	do	0.500
Plush textures of cotton and wool, as blankets and rugs	do	0.580
Worsted and ribbed vests, stockings, caps, gloves, etc., which are not hand-made	do	1.450
Carpets without fringe, as Kidderminster	Sq. yard	0.145
Carpets of curled frieze, uncut	do	0.261
Do cut or velvety	do	0.406
Bands for girths, reins, etc	1 kilog	0.396
Silk:		
Loose or twisted	do	3.480
On reels	*ad val.*	29 per ct.
Fringes, tassels, buttons, pure or mixed, or of wood, etc., covered	1 kilog	2.320
Over iron or metal	do	0.725
Strings of bugles, etc	do	1.305
Twilled silk or satin, stamped or worked, Canton crape, moiré, gros, serge, etc	do	6.935
Brocaded or embroidered and ornamented with velvet cord, damask, etc	do	8.196
Cotton silk, half-silk, floss, twilled or satined, stamped or worked, of all kinds or colors	do	3.226
Brocades, etc., with cord and other ornament	do	5.485
Light or transparent textures, with or without fringes or embroidery	do	16.385
Do of floss, as crape, etc	do	8.750
Velvet or plush, plain, stamped, dyed, ribbed, figured	do	15.761
Velvet, embroidered in the loom	do	21.088
Tulle, plain, worked or not	do	6.305
Do embroidered in the loom	do	14.500

		Spanish dols.
Silk:		
Point lace, blonde, narrow, plain, worked, open, embroidered in the loom	do	25.218
Lace, hand-made	*ad val.* 29 pr ct.	
Silk tissues of all qualities, plain or embroidered in the loom, vests, caps, stockings, etc	1 kilog	11.979
Do in purses, gloves, mittens, etc	1 kilog	16.891
Silk, elastic	do	1.595
Handkerchiefs, called "Indian"	do	5.094
Do with thread or pickings	do	2.396
Handkerchiefs and cravats, superior classes of moiré, taffety, gauze, etc., pay the duty on the material of which composed, with an addition of 30 per cent		
Ribbon, plain, brocaded, twilled, embroidered in the loom, satined, worked, stamped, of any kind of color, pure, or with over 50 per cent silk	do	8.120
Do of cotton, silk, or pickings, or containing less than 50 per cent of silk	do	5.075
Bands for girths, reins, and carriage use, not included above, brocaded or with warp of wool, hemp, cotton, or other common material	do	1.000
Mosquito curtains, with or without cords and tassels	Each	0.870
Umbrellas of silk or half-silk, of more 418 millim	Per dozen	6.960
Parasols, do do	do	10.440
Mantillas, shawls, veils, armlets, vests, collars, and ready-made clothes	*ad val.* 29 pr ct.	
Drugs and chemicals are subjects to an average reduction of 25 per cent under the new rates, although upon some the reduction is greater than this.		

In the island of Porto Rico, vessels which arrive from infested ports are quarantined from 8 to 40 days. The pilot, without going on board, will cast the vessel's anchor, though she may be from an infected port. Masters of vessels, upon their arrival, must wait for the health and revenue officers before communicating with anyone from the shore or on other vessels; nor will anyone be permitted to leave the vessel until she has been admitted to pratique. The rules of the ports are very strict, and intended for the preservation of health, order, and the prevention of smuggling. Goods arriving on ships must be consigned to an established merchant. Licensed merchants only can enter goods at the custom house, and they must have originally come to their consignment. The rules concerning manifests are the same as those existing in Cuba. Fines ranging from $25 to $1,000 may be inflicted for breaches of the rules, and even confiscation of ship and cargo. It has been said, not without foundation, that the whole code is a perfect web of snares for the unwary. The following are the port charges at several of the ports: At San Juan—pilotage in and out, $15 to $25, according to size; and each time the vessel is moved, $2; and for the boat used by the pilot, 25 cents per man; interpreter, $4. Sanitary fees—vessels of 200 tons, $10; for every additional 50 tons, $1 up to 450 tons; above 450 tons, $16; visé of the bill of health, $1. Wharfage—vessels, up to 200 tons, $4; above 200 tons, $4.50; custom house and inspector's fees, $8; tonnage, $1 per M. kilos. of gross cargo; clearance with cargo, $1 to $8, according to the value of the cargo; ballast costs 50 cents per ton to discharge, and $1 per day for a guard while the men are working; labor, $1 per day. Vessels bringing full cargoes of coal are charged no tonnage dues, but must pay other imposts, namely, clearance, 12½ cents per ton; captain of the port's fees, $6; light dues, etc., 100 American tons are 122½ Spanish. All charges must be paid in Spanish money. Merchants' commissions are the same as in Habana at all the ports of Porto Rico. At Ponce: Tonnage and health dues the same as at San Juan; pilotage in and out, $10; wharfage is payable for each lighter-load; none on coopers' material or lumber; interpreter and duplicate manifest, $12; stamped paper, $10; fort pass, $2; hospital money, $4. Private charges: ballasting with stone, $1.50 per ton; with sand, $1 per ton; ballast guard, $1; lighterage in discharging, from $8 to $16; wharfage, per lighter-load, $1; lighterage of sugar and molasses, per cask, 34 cents, and of coffee, per ton, $1; labor, for hauling lumber, 50 cents per M. feet; hose-hire, per puncheon, 6¼ cents; jackscrew-hire, $1 per day; water, $1 per puncheon; labor, $2 per day: stevedore, 20 cents per hogshead; price of steam coal, $7 to $10 per ton. At Mayagüés the government charges are about the same as at Ponce; discharging sand ballast, 50 cents; stone bal-

last, free; ballast guard, $2 per day; lighterage, loading, 25 cents per hogshead; discharging general cargo, $10 per load of 40 tons; stowing sugar, 20 cents per hhd. At Fajardo: Pilots are found at the N. E. point; pilotage is compulsory; the rate is $5, whatever the size of the vessel; shifting berth, $2; tonnage, $1 per M. kilos.; harbor dues, $1.50 per day for the ballast guard, counting only the days employed in actual work; health dues, from $4 to $16; quarantine, per visit, $2 when quarantined; port warden, $4; interpreter, $4. Private charges: discharging ballast, 75 cents per ton; labor, per day, $1.50; lighterage on general cargo, 50 to 60 cents per ton alongside, a charge to the vessel; ballast of sand costs $1 per ton; of stone, $1.25 delivered alongside; pilotage outward, $5 per vessel; lighterage, per hhd., 50 cents; per tierce, 20 cents. Merchants' commissions are the same as at other ports. At Arroyo: captain of the port for pilotage, $10; health dues, $10 to $15; interpreter, $4; stamped paper, $10; custom house fees, $4; tonnage, $1 per M. kilos. of gross cargo; merchants' commissions, the ruling rates elsewhere. At Naguabo the expenses of a foreign vessel of 280 tons would be about $465, including $150 for lighterage; at Humacao, about $180, including about $105 for lighterage of 200 hhd. of sugar; at Arecibo, the expenses of a vessel of about 225 tons, with ballast inward, and cargo outward, are about $410.

I have mentioned elsewhere the treatment extended at ports of the United States to vessels and goods of nations having treaties of commercial reciprocity with the American government. Before proceeding to speak of regulations and usages, and charges at the chief ports of the United States, liable to be visited by Hispano-American and West Indian vessels, I will insert some information of general interest to seafaring men and ship-owners.

Flags of the International Code of Signals.—This code has been recommended and adopted by nearly all the principal nations of the world. It is, therefore, indispensable that masters of vessels and their officers become acquainted with its details and practical working, in order to understand and transmit the various signals made, as well as circumstances will permit. Shipowners should see that their vessels are provided with the requisite number and class of flags for signaling. The flags represent 18 consonant letters, viz: B, a red forked flag; C, a white pointed flag, with a small red ball about one-third of the flag's length from the staff; D, a blue pointed flag, with a small white ball about one-third of the flag's length from the staff; F, a red pointed flag, with a small white ball about one-third of the flag's length from the staff; G, a pointed flag, the half toward the staff being yellow, the other half blue; H, a square flag, the half toward the staff being white, and the rest red; J, a parallelogram, divided horizontally into three parts, the upper and lower ones blue, and the middle one white; K, a parallelogram, with a little more than half of it toward the staff yellow, the rest blue; L, a parallelogram, in four equal parts, the upper one toward the staff, and its opposite in the diagonal corner, blue, the other two parts yellow; M, a parallelogram, crossed diagonally with narrow white stripes, from upper left to lower right, and from upper right to lower left; the rest of the flag is blue, forming four triangles; N, a flag with sixteen squares, blue and white alternately; at the staff the upper square is blue, the lower white; at the other end the upper square is white, and the lower blue; P, a square blue flag, with a small white square in the center; Q, a square yellow flag; R, a parallelogram, crossed both perpendicularly and horizontally with narrow, yellow stripes; the rest of the flag is red in squares, those toward the staff being a little broader than those at the other end; S, a white, square flag, with a small, blue square in its center; T, a square flag, divided perpendicularly into three equal parts, red to the staff, white in the middle, and blue at the end; V, a square flag, crossed diagonally with narrow, red stripes, from upper left to lower right, and from upper right to lower left; the rest of the flag is white, forming four triangles: W, a square flag, with a parallelogram in the center, within which is a smaller parallelogram; this last is red, the other white, and the main field of the flag blue. It is thus shown that each one of the 18 consonants has its especial flag or pennant, of varied forms and colors. A white, pointed flag, with a small, red ball in the middle of the field, quite near to the staff, means assent, yes; a blue, pointed flag, with a small, white ball in the middle of the field, quite near the staff, means no. In order to make the numbers, hoist the ensign over the code pennant, and in another place show the ship's letters, thus: M (signal), under it W (signal), next under, D (signal), and immediately under

the last, R (signal). Now for the signification of each letter-signal. The groups from G, Q, B, C, to G, W, V, T, are assigned to men-of-war; and those from H, B, C, D, to W, V, T, S, to sea-going merchant vessels. It is not supposed that the range of these groups will allow the use of a special token or signal for each merchant vessel, and each man-of-war, of all nations; and in case of the same groups being assigned to two vessels of different nationalities, the nationality of the vessel can be determined by the national ensign, which must, in all cases, be first hoisted in connection with the distinguishing signal, to indicate the nation in whose ship-list the name answering to the signal is to be found. The pennant which denotes signaling according to this code, should also be hoisted under the ensign. The distinguishing signals of four flags must always be hoisted together, in their stated order, where they can be most plainly seen. For example: if the distinguishing signal is to be hoisted, flag H must be hoisted to the top, flag B next below, flag C following under, and flag D lowest. The distinguishing signals of merchant vessels are different from all others, for the reason that in hoisting them the uppermost flag is in all cases a square one. When a signal is seen, and no nationality ship-list corresponding to the ensign shown is at hand, the signal, nationality, latitude, longitude, and date sooald be recorded, for further communication, or reference. This code has been adopted by the following nations for their men-of-war, as well as merchant vessels, viz: United States, Great Britain, France, Denmark, Holland, Sweden, Russia, Greece, Italy, Austria, Germany, Spain, Portugal, Brazil, Belgium, and others. This is the only code now used at the signal and semaphore stations of the above named countries, and the officers at these stations have no means of understanding or signaling by any other code. The international code of signals can be purchased from dealers in charts. Signal stations are useful not only to report passing vessels, but to forward urgent messages from owners or consignees to ships, or vice-versa.

Cautionary Storm Signal.—Such a signal is displayed at all active signal and display stations of the signal service. The simple cautionary signal is a red flag with black square in the center, by day, or a red light by night. It means caution in view of an approaching storm. It is cautionary against winds blowing from any direction.

Cautionary Off-shore Signal.—A white flag with black square in the center, shown above the simple caution storm signal by day, or a white light over a red light by night, is cautionary against rough weather, and against winds expected to blow from a northern or western direction, or off-shore at or near the place at which it may be displayed.

The following charges have to be paid at the custom houses by vessels arriving at ports of the

United States:

Charges inward: tonnage dues, on American vessels, 30 cents per ton; on foreign vessels, according to rules set forth elsewhere; entry fee at custom house, when the cargo is of free goods, $2.50; entry when the cargo is of dutiable goods, $5; general order, 20 cents; each jurat, 20 cents; permits to land chronometer, sails, etc.), 20 cents; hospital money, charged on American vessels for each employé on board for his time of service since the date of the last entry of the vessel into a port of the United States, per month, 30 cents; port entry, $2; United States commissioner's fees for paying crew, 50 cents per man. Charges outward: for log-book and papers, $3; United States commissioner, for shipping crew, per man, $2; clearance from custom house, $2 50; bill of health, 20 cents; crew bond, 40 cents; certifying the crew list, 25 cents; shipping articles, 20 cents.

The following rules and charges are enforced at the principal ports below mentioned: The rules and regulations of New York are 20 in number, and like those of most American ports are framed with a view to avoid confusion, preserve order, and enforce sanitary measures. They are strictly carried out. Masters of vessels are required, under penalties of fine and imprisonment, to see that no ballast, coal, cinders, ashes, stones, bricks, tiles, or any loose matter be thrown or fall from their vessels into the waters of the port. The quarantine regulations are about the same as those observed at other ports. Any infractions of them are visited with heavy penalties. Pilots in New York are licensed and subject to the control of the board of commissioners of pilots. No others can offer their services to pilot vessels in or out of the harbor by way of Sandy Hook. It is illegal to employ any person for that purpose who is not a licensed pilot. The penalty for each violation of the ordinance is a fine not exceeding $100, or imprisonment for a term not to exceed 60 days. Pilots are required to board the nearest vessel having a pilot signal. They must transport a vessel to any part of the harbor that may be desired. Masters must inform the pilots of the exact drafts of their vessels. The following are

the usual port charges in New York: Pilotage: every merchant vessel, inward bound, and not exempted from pilotage, drawing less than 14 feet of water, $3.70 per foot; if drawing more than 14 feet and less than 18 feet, $4.50 per foot; if drawing more than 18 feet, and less than 21 feet, $5.50 per foot; if drawing 21 feet and upward, $6.50 per foot. Masters are not obliged to engage the services of a pilot off shore. The pilotage, outward bound, is $2.70, $3.10, $4.10, and $4.75 per foot, according to draft, as per foregoing schedule. From the 1st of November to the 1st of April $4 are added to the full pilotage of every vessel bound inward or outward. For taking vessels from the upper to the lower quarantine grounds, if there is death or sickness on board, double outward pilotage. Vessels from infected ports, but having had no cases of sickness on board, are charged single outward pilotage. Vessels from the lower quarantine ground to New York, half pilotage; from the lower to the upper quarantine, a quarter pilotage; from the upper quarantine to New York, a quarter pilotage; transportation from North river to East river, and vice versa, $5; hauling to or from a wharf, $3; detention, $3. The quarantine charges are: for fumigating steamers, $5; sailing ships, $3; and all other sailing vessels, $2; no charge is made for more than one fumigation for each voyage, unless contagious or infectious diseases exist, nor can more than $10 be exacted in any case. The charge for removing patients is: for each patient transferred to Swinburne island hospital, $1; for each one conveyed to Ward's or Blackwell's island, $5; no charge can be made by the health officer for medical attendance; his regular fee is $6.50. There is no legal rate for towage; this depends on distance, state of weather, and the vessel's size. In good weather a vessel of 300 or 400 tons can be towed for $30; one of 600 tons for $35: and one of 1,000 tons for $45. If the vessel is disabled she will be required to pay a much higher rate; the outward towage is subject to the same rules as the inward. The harbor fee, so called, is 1½ cents per ton. Wharfage is rated as follows: on a vessel measuring up to 200 tons, 2 cents per ton, and on each additional ton, ½ cent; vessels not loading or unloading can arrange to lie at half rates, or if laid up, special rates are made. The charges for loading or discharging cargo are heavy. The stevedoring work is thoroughly done by master workmen; but there are also irresponsible persons who offer their services at lower than the current rates for thorough work. The following rates of commissions for services rendered by consignees or agents have been adopted by the chamber of commerce: drawing or endorsing bills of exchange, one per cent.; effecting marine insurance, half of one per cent on the amount insured; landing and re-shipping of goods from vessels in distress, on value of the invoice, 2½ per cent.; on bonds to the effect that passengers will not become a burden to the city, on the amount of the bonds, 2½ per cent.; on purchase or sale of vessels, 2½ per cent; on disbursements and outfits of vessels, 2½ per cent.; for procuring freight and passengers, 5 per cent.; for collecting freight, 2½ per cent.; for collecting insurance losses, 2½ per cent.; for chartering vessels, on the amount of the charter party, 5 per cent.; on bonds given for vessels given under attachment, 2½ per cent. on the amount of the liability.

Regulations and charges at Boston: From June 1st to November 1st, all vessels arriving from the Bermudas, West India islands, and Central and South American ports, must stop at the quarantine station. It is unlawful for them to leave the quarantine grounds, or discharge their cargoes, or portions thereof, without a written permit of the port physician. This officer is authorized to make such rules or regulations as in his judgment will conduce to the health of the city. He is entitled to a fee for every written permit he issues. Owners, consignees, masters, or others interested in a vessel or her cargo, must truthfully answer every question propounded to them by the board of health, or its officers, on all matters touching their crew or passengers, under the penalty of $500 fine, with six month's imprisonment, either or both, at the discretion of the court having cognizance of the case. The ordinances in relation to public health are in several other respects very strict, and embrace all persons, goods and effects, arriving on vessels, as well as persons visiting or going on board of the same. The quarantine dues are for brigs and schooners, $5; ships and barks, $8. The port warden's fees are $4 for the first visit, and $3 for each subsequent visit. The pilotage rules are as follows: off-shore pilotage is obligatory from November 1st to April 30th. The outward rates range from $11.55 ($1.65 per foot) for seven feet of draft water, to $125, ($5 per foot) for 25 feet of draft. The inward rates range from $18.48 ($2.64 per foot) for 7 feet of draft, to $125 ($5 per foot) for 25 feet of draft water; the off-shore pilotage ranges from $3.70 for 7 feet of draft, to $25 for 25 feet; thus, in the first instance, the ship pays $22.18,

and in the second $150. The pilot boats cruise off Cape Cod, where inward-bound vessels can usually procure a pilot. The signal for a pilot is a flag at the foremast head, and a flash at night. Vessels liable to pilotage must take the first one offering. The off-shore line is an imaginary one from Thatcher island to Monument land in Plymouth. Vessels inside this line are clear of off-shore pilotage. Any vessel which comes inside of Boston light without being spoken, is exempt from pilotage; if she takes a pilot inside of Boston light, she pays only two-thirds of the rate. It is the custom usage, though not without exceptions, that a pilot who brings a vessel into port shall take her out. Towage in Boston is not very expensive; the tug-boats are moderate in their charges, which vary from $6 for 250 tons or less, for ships, barks, and brigs about the harbor, below the bridges, and not across the flats, to from $25 to $55, this latter price being for a ship of over 1,500 tons to Boston light, or Graves, while $50 are charged for a ship of 1,000 to 1,500 tons, to the same points; inward towage in bad weather, or when a vessel cannot make port without the services of a tug, is as may be agreed upon beforehand between her commander and the pilot. Wharfage: vessels pay no wharfage while loading or unloading; they are allowed a number of days for unloading, about 12 for those under 150 tons, 30 for those of 800 to 1,100 tons, 40 for those from 1,100 to 1,500 tons, and 45 to all exceeding 1,500 tons; for discharging, the number of days is more limited; wharfage rates for vessels under 200 tons register, 75 cents per day per ton register; vessels can haul up for less on previous arrangement. The charge for discharging and loading varies according to the merchandise, but is never exorbitant. The fee of the surveyor of the board of underwriters is $10. Merchants' commissions are as follows: for collecting freight, 1¼ per cent.; on disbursements, 2½ per cent.; on outward freight procured, 5 per cent.; on vessels arriving in distress, and their cargoes reshipped, 2½ per cent.; no commission is charged for collecting the inward freight when the outward freight is procured by the same merchant; no charge on disbursements unless the vessel leaves in debt to her consignee, in which case she is also charged interest on the amount due.

In Philadelphia the port regulations are simple, and intended to preserve order, and avoid confusion and obstruction; they are strictly enforced. It is enjoined on masters that nothing shall be thrown or allowed to drop from their vessels into the waters of the rivers. All vessels arriving from, or sailing to a foreign port, must take a pilot. The rates of pilotage are, per foot, up to 12 feet, $3.74; over 12 feet up to 15 feet, $4.16; over 15 feet to 18 feet, $4.50; over 18 to 20 feet, $5; over 20 feet, $5.50. Wharfage at the city wharves, $2 to $5 per day; at the oil piers, $3.50 per day for vessels under 300 tons; $4.50 on vessels between 300 and 400 tons; and so on to $7 for vessels over 1,000 tons; at the grain-loading wharves the charge does not exceed $2 per day; at some of the wharves nothing is charged. The quarantine regulations prescribe the following fees: vessels which arrive during the quarantine season—from June to September, both inclusive—are charged, if they have come from the region of the Amazon river to Rio de la Plata, $10; from the West Indies and as far south as the Amazon river, and as far north as Canada, $5; an additional fee of $5 is charged on vessels visited at the outside channel at the lazaretto. Private charges: port warden's survey of hatches, storage, etc., $10; harbor towage, according to time employed, $10 to $15; the city has powerful ice tugs, which enable vessels, however severe the weather may be, to go to sea, but their use is required only in exceptional winters; the lowest charge is to Chester, to or from, 16½ miles, for a ship of 1,300 tons and upwards, 11 cents per ton; the smaller the tonnage the higher is the rate; the highest charge is to the breakwater, 103 miles, for a ship of the aforesaid tonnage, 35 cents per ton. Stevedore's charges are rather moderate for good work by responsible men; labor per day is $2 to $2.50.

In the port of Baltimore vessels approaching the quarantine ground, and until boarded by the quarantine physician, are required to display their flags in the main shrouds at half-mast; and when boarded by that official produce, if possible, a clean bill of health and other papers, such as the manifest, log-book, and lists of crew and passengers. Steam vessels must blow their whistles three times on entering the quarantine ground, again soon after entering, and a third time when opposite the marine hospital, where they must wait to be visited by the medical officer. The mayor and board of health may, for good reasons, exempt from quarantine vessels arriving from ports north of Cape Henry. Vessels arriving from the sea between April 30th and November 1st, and at other times, if deemed proper by the mayor and board of health, must not approach nearer to the city than the quarantine ground, which is to be the southern or main branch of the Patapsco river. It is unlawful for ves-

sels subject to quarantine to approach nearer to the city than a line drawn from the point of Fort McHenry to the hospital ground. It is likewise unlawful for them to come within the Lazaretto light, on the north side of Fort McHenry, until they have received a written permit from the marine hospital physician. Vessels with cases of contagious or infectious diseases, or even such as would justify a suspicion thereof, must come to at the quarantine ground, await the visit of the marine hospital physician, and not leave the ground until duly permitted by that officer. No person, whether a passenger, or member of the crew, and no part or parcel of the baggage, goods, effects, or other articles contained in the vessel, shall be allowed to leave her without a written permit being first obtained from the visiting physician at the marine hospital. All cases of disease or sickness occurring on the voyage, or after arrival must be duly reported. Every infringement of the above requirements will subject the offender to pay a fine of $400. If the offender is the commander, captain, pilot, or other person having charge of the vessel, and he has absconded or evades the execution of the ordinance, then the owner or consignee will be made to pay the fine. All persons are forbidden to board any vessel entering the quarantine ground until permitted by the boarding physician. No boat can go alongside a vessel in quarantine without the express leave of that officer. No foul clothing, bedding, or other material from a quarantined vessel shall be thrown overboard. Commanders and persons in charge of vessels are required strictly to comply with the requirements of the ordinance. Quarantine dues on vessels of 200 tons and under, $2; over 200 tons, one cent per ton. The pilots' rule of the port is that when Cape Henry lies due north, every vessel bound inward must take a pilot; the fees are as follows: to 12 feet draft, $3.50 per foot; 12 to 15 feet, $4; 15 feet and upwards, $5; detention of pilot, per day $3; the charge for outward pilotage is the same as for inward. Towage: the rate depends on the tonnage of the vessel, and the distance she is to be conveyed, and whether she is a fore-and-aft, or square-rigged craft, in ballast, or loaded. The several points are Fort Carroll, 6 miles; North Point, 11; Craighill, 20; Sandy Point, 25; Annapolis, 30; Thomas' Point, 33; Poplar Island, 42; Sharp's Island, 52; James Island, 59; Cove Point, 65; Cedar Point; Point-no-Point, 86; Point Lookout, 93; Smith's Point, 104; Bluff Point, 117; Windmill Point, 123; Wolf Trap, 130; New Point, 145; Back River, 159; Old Point, 164; and Cape Henry, 177. The towage of a square-rigged vessel, of 100 to 200 tons, to Fort Carroll, in ballast, $7; loaded, $7; to Cape Henry in ballast, $17 9; loaded, $124; of a ship so rigged, of 1,501 to 1,600 tons, to Fort Carroll, in ballast, $35; to Cape Henry, $169; loaded, to Fort Carroll, $37; to Cape Henry, $214. The rates do not include docking vessels after anchoring on arrival, nor pulling off in the stream before departure. All vessels are considered in ballast when not more than half the register tonnage is occupied with cargo. Rates for docking square-rigged vessels in clear water: inside of Fort McHenry, quarantine, and oil wharves, Spring Gardens, vessels are charged per one or two boats, varying for a vessel of 150 to 200 tons, from $4 to $8; for a vessel of 1,551 to 1,650 tons, from $18 to $32; vessels above 1,650 tons pay $1 for every additional 100 tons for one boat, and $1.50 for every additional 100 tons for two boats. Wharfage at wharves controlled by private persons the rates vary from $1 to $2.50 per day; at those held by the city or the state the rate is one cent per register ton; at the grain elevator, $1.50 per day for vessels up to 600 tons register, and $2 if larger; at oil wharves, $3.50 per day on all vessels regardless of size. The rates for discharging and loading are as follows: unloading ballast, 20 to 30 cents per ton; coffee, 1 to 1¼ cents per bag; guano, 15 cents for Peruvian per ton, and from the Pacific 70 cents per ton; general cargo, per ton measurement or weight, from sailing vessels 25 cents, from steamers 35 cents; hides, $10 per thousand; iron ore, 20 cents per ton, and iron in bars, 25 cents per ton; lumber, 30 to 40 cents per thousand feet; labor, 20 cents per hour, or $2 per day; salt, $7 to $8 per M. bushels; time limited for discharging salt to 1,000 bushels per day; loading and cost of ballast, 50 to 70 cents per ton of earth or stone; cotton, 40 cents per bale; general cargo, per barrel, including flour, 2 cents, or 25 cents per ton, weight or measurement, for sailing vessels, and 35 cents for steamers; guano, 15 cents per ton; fee of the surveyor of the board of underwriters, $10; dunnage, $3.25 per cord, and $11 per M. feet of dunnage boards; marine railway: vessels of 800 tons or less, 10 cents per day the first day, and 5 cents per ton for each succeeding working day; vessels of over 800 tons, 15 cents per ton the first day, and 7½ cents per ton each succeeding day; there are ample facilities for ships measuring up to 1,600 tons.

At Charleston vessels coming into the quarantine ground must have their colors at half-mast on the foremast, on crossing the bar; the quarantine laws

are enforced from May 1st to October 31st, within which period all vessels are left by the pilots at the quarantine ground, where the health officer pays the inspecting visit, and gives his instructions. His fees during the quarantine season are $6.50 per vessel. The harbor regulations are very explicit and strictly carried out. Any master, commander, or owner of a vessel, refusing or neglecting to comply with any of the requirements becomes amenable to the penalties therein prescribed, namely: $20 with costs for the first offense, or first day; $50 with costs for every subsequent day of such refusal or neglect. No vessel loaded with gunpowder is permitted to haul to a wharf, or to lay nearer than 100 fathoms from any wharf; the penalty for infringing this clause is a fine of $100. The harbor master is authorized to cause vessels to move, and to assign them anchorage; any refusal or neglect to obey his directions in any matter comprised within his authority, or that of his assistant, is visited with a fine of $100 and costs for the use of the city. The port warden's fee for each vessel is $3. The charge for towage is as follows: inward, from $20 to $30, except for vessels in distress, when the rate is according to the needs of the vessel; vessels are docked for $10 to $20. Wharfage is rated by the vessel's tonnage, thus: under 100 tons, $1 per day; 100 to 300 tons, $2 per day; 300 to 600 tons, $2.50 per day; 600 to 1,000 tons, $3 per day; over 1,600 tons, $4 per day. Labor is 25 cents per hour, or $1 to $1.50 per day; cost of water, ½ cent per gallon. The commissions vessels are charged by their consignees or agents are about the same as at other ports; but where the merchant does all the business of a vessel, he charges no commission for collecting freight or on her disbursements, unless she leaves in debt, when 2½ per cent. is charged her, and also interest on the amount of the advance.

At New Orleans, vessels arriving from places having any infectious disease, are subjected to a strict quarantine. As a rule quarantine is declared, lasting through the summer months, against West Indian ports, to keep out yellow fever. Quarantined vessels are disenfected, fumigated, and purified before being permitted to go up to the city. The quarantine dues on sailing square-rigged ships of over 1,000 tons, $30; under 1,000 tons, $20; barks, $15; brigs, $10; steamships, $20. There are nine harbor rules, very simple, and conducive to the preservation of order, and the avoidance of confusion. The harbor master sees to their proper observance. Vessels going to the levees are required to have their yards braced sharp up to the starboard braces, their port anchor on the forecastle, and their starboard anchor cock-billed, ready to let go; jib-booms must be rigged in the full length, and to do this, permission must first be had from the harbor master. Throwing ballast, rubbish, or any thing that will sink into the river, is a violation of law, and will be severely punished. Vessels must not change their positions without first obtaining a permit from the harbor master. This officer's fees are, on ships and steamers, $20; on barks, $15; and on others, $10. Pilotage is compulsory, the charges being for 10 feet of draft and under, $3.50 per foot, and for over 10 feet, $4.50 per foot. Vessels entering in tow do not pay for river pilotage; if not in tow, the charge is $40 per vessel; the charge for outward pilotage is the same as in inward square-rigged ships; and other decked vessels, as well as steamships arriving from the sea and mooring at any wharf in the city, are taxed as follows for wharfage: on 1,000 tons and under, 20 cents per ton; on excess over 1,000 tons, 15 cents per ton; sailing and steamships are charged alike; an extra charge of one-third of these rates is levied upon all vessels—sail or steam—remaining in port over two months; another third per term of two months if they remain over four months. Where there is merely the levee with suitable conveniences for making fast, the charge is 5 cents per ton register every sixty days. The following are the private charges of the port of New Orleans: towage, 75 cents per register ton, from sea to city, or vice versa. Port warden, survey of hatches, $3; of cargo, including certificate, $25. Ballast discharging, usually the labor employed; discharging general cargo, 40 cents per ton of weight or measurement; salt, in sacks, 30 to 40 cents per ton; salt, in bulk, 75 cents per ton. Tarpauling, depending on time and cargo, $35 to $75. Watching cargo, $2.50 per night. Ballast to leave port, $1 to $2 per ton, all being imported. Vessels should, therefore, retain on board what they may need of the ballast they brought. Cotton, according to labor expended, 25 to 80 cents per bale; for the lower rate the cotton is merely rolled into the vessel, and placed in position by hand; for the higher rate all appliances are used to get every bale possible into the ship; this is slow, and done only by sailing vessels. Steamers usually pay 50 cents, for which fair and rapid work may be done. Compressing is done at 50 cents per bale. Staves, loading, according to labor, $5 to $9 per M. Flour, 7 cents per barrel; naval stores, 7 cents per barrel. Oil-cake pays 80 cents per ton, by steam, and $1 by sail. Oil, 15 cents per barrel.

Grain loading: most of the bulk grain is loaded by floating elevators from barges across the river, from private wharves, at one-third of the regular levee dues. Lining for bulk grain is now abolished with iron vessels. Lining for bulk grain in wooden vessels is charged for according to the work. This can be done, including shifting boards, for ¾ of a cent a bushel; never should exceed 1¼ cents per bushel. Elevating charges are paid by the shipper. Trimming bulk grain, $2 per 1,000 bushels; grain surveyor's certificate, $20. Vessels load grain in bulk generally. If shipped in sacks there is an additional charge for filling. Stowing bags, 5 cents per bag. Labor per hour, 40 cents; per day $4. Tobacco, where steamers hoist, $1.25 per hogshead; if done by stevedore, $1.50 per hogshead. Steam coals, stowed in bunkers, $4.50 to $5 for 2,000 pounds. Commissions, collecting freight, 2½ per cent.; on disbursements, 2½ per cent.; on procuring freight, 5 per cent. Commission and charges on vessels arriving in distress, and their cargoes reshipped, custody, 2½ per cent.; sale of ship or cargo, 2½ per cent.; advances, 2½ per cent.; disbursing, 2½ per cent.

At Mobile a strict quarantine is observed, during the summer months, against ports where yellow fever generally prevails. The health dues during quarantine are 2 cents per ton. Pilots are always on the lookout for inward-bound vessels. The rates of pilotage are as follows: lower bar, in and out, ranging, according to draught, from $3.50 per foot for vessels drawing from 4 to 10 feet, to $4.50 per foot for those drawing 12 to 14 feet, and $6 per foot for those drawing 14 to 20 feet; upper bar, $2 per foot. The harbor dues in the city are 3 cents per ton; in the bay, no charge. The towage rates in Mobile are the following: within the port, $10; from sea to bay, in ballast, 8 cents per ton, and laden 10 cents; vessels usually go to the lower bay, unassisted by a tug boat; from the bay to the city, and vice versa, the rates range from $20 for a vessel drawing 8 feet and under 9 feet; $50 for one drawing 10 feet and under 10¼ feet; and thus adding $5 for every additional ¼ foot, to $130 for a vessel drawing 13 feet, and under 13¼ feet. The other charges payable by vessels at Mobile are given hereinunder: port warden's fee, $3; discharging ballast on the breakwater in the bay, 50 cents per ton, and 20 cents if discharged at the city; the cargo must be discharged by the ship's crew, otherwise, day labor will cost her $1.50 per day, and 25 cents per hour; lighterage from bay to city, on coal and other bulky cargo, is $1 to $1.25 per ton. In loading, arrangements are made with the stevedore on the base, for cotton, of 5 cents per bale; for lumber, 50 cents per M.; naval stores, 6 cents per barrel; turpentine, 8 cents per barrel; staves, $6 per M.; compressing cotton, 50 cents per bale; lighterage from city to bay on cotton, per bale, 30 cents; pitch, tar, and rosin, per barrel, 12 cents; turpentine, 20 cents; sawed timber and deals, $1.50 to $2 per M. superficial feet; timber towed in rafts, per stick, 75 cents to $1. Commissions: collecting freight, 2½ per cent.; for procuring freight, 5 per cent. Water at the lower anchorage costs 2 cents per gallon. There is a marine railway for vessels drawing 6½ feet, and a dry-dock for those measuring 1,000 tons.

The harbor regulations of Galveston are explicit, and strictly observed, being intended to maintain order, prevent confusion, and accidents to life and property, and a number of the provisions conduce to cleanliness, and the preservation of the public health. Any person throwing, or permitting to be cast or deposited in the harbor stone, gravel, earth, ashes, logs, floating or filthy things, or whatever may cause obstructions therein, becomes liable to a fine of $100 for each offense, and $10 for every day the same is suffered to remain therein. The harbor master is authorized to regulate and station ships; any interference to hinder him in the discharge of his duties makes the offender liable to a pecuniary penalty of not less than $20 nor more than $100 for each offense. No pitch, tar, or other combustible material is to be heated on board any vessel, but on stages removable in case of accident. No vessel laden with gunpowder is permitted to haul to any wharf, but must, on entering, hoist a red flag in the rigging. The penalty for a violation of this section is not less than $20 nor more than $100 for each offense. A strict quarantine is observed toward vessels from infected ports, especially those where yellow fever is prevalent during certain months of the year; the quarantine dues are from $5 to $10. The port's pilots are usually looking out for vessels, at about six miles outside the bar; pilotage is obligatory; the rates inward and outward is $4 per foot; vessels which load outside the bar are not required to pay pilotage. The port warden's fee for three visits is $7.50. No wharfage is charged at this port. Towage is a matter of agreement, the charge ranging from $30 to $60; if the vessel loads and unloads outside the bar, she pays no towage; she is allowed besides, $3 per day for every sailor working as a stevedore's man;

about one-half of the cotton is shipped outside the harbor. Discharging ballast is 25 cents per ton; coffee, 3 cents per bag; coal, 40 cents per ton: salt, 40 cents per ton; general cargo, 4 cents per barrel. Lighterage is paid by vessels which load outside the bar at the rate of £2 per ton. The cost of labor per day is $3.50 to $4, and per hour 30 to 40 cents. Ballasting: sand ballast is worth $1 per ton, and stone ballast £2 to £4 per ton; placing it on board, 25 cents per ton. Cotton stowage: compressing cotton bound to foreign ports 60 cents per bale, and by Taylor's presses 70 cents per bale; vessels load from Taylor's presses an average of 1,700 to 1,850 lbs. per register ton, and in some instances full-built vessels have taken as much as 2,000 lbs. per ton; compressing cotton on coasting vessels is 50 cents per bale; stowing on sailing vessels, 70 cents per bale, allowing 5 cents per bale if the ship's crew roll the cotton from the wharf to her deck; on steamers, 60 cents per bale, with the same allowance of 5 cents if the crew aid in the work. Vessels loading outside pay for the lighterage 45 to 50 cents per bale, and for general cargo $2 per ton; this is a charge to the vessel, not to the shipper. Water is worth ¾ to 1 cent per gallon; the price of provisions is subject to the variations constantly taking place in the principal markets. Merchants' commissions are the usual ones at most ports. Lay days and demurrage: vessels of 250 to 300 tons, 20 days, $25 per day; of 300 to 400 tons, 25 days, $30 per day; 400 to 500 tons, 30 days, $35 per day; 500 to 700 tons, 35 days, $42.25; 700 to 900 tons, 40 days, $53.25; 1,000 tons, $75.

At San Francisco strict ordinances are in force for the preservation of order. The quarantine regulations are usually well observed. The quarantine officer is authorized to charge: for a permit to land freight or passengers, or both, from any sailing vessel less than 500 tons, from any port outside the State of California, $2.50; over 500 tons and under 1,000, $5; each additional 1,000 tons, or fraction thereof, $2.50 more; for vessels propelled in whole or in part by steam, of 1,000 tons burden or less, $5, and $2.50 for each additional 1,000 tons or fraction thereof. The port is well provided with competent pilots; the off-shore boats cruise in the vicinity of the Farallones; the rules governing pilots are strict, and so are those to protect them and their interests. The pilotage inside the heads to the anchorage opposite S. F., and about the harbor or between the harbor of S. F. and Mare Island, Vallejo, or Benicia, must be agreed upon between the parties, not exceeding $5 per foot draught; pilotage in and out of the harbor of S. F., for vessels of and under 500 tons is $5 per foot draught; for those over 500 tons, an additional charge of 4 cents per ton registered measurement; for whaling or fishing vessels, $1 per foot. The rates of wharfage vary from $1.50 per day for vessels of 50 tons and less than 75 tons, to $12.50 per day for vessels of 1,000 tons and under 1,100 tons, and $25 per day for vessels of 2,200 tons, and under 2,500 tons, and 50 cents for every additional 100 tons. Port warden's fees, from $30 to $75 per vessel. Labor is 40 to 50 cents per hour, and $3 to $5 per day. Fee of the surveyor of the board of underwriters, $20. Cost of water, ½ cent per gallon. Commissions as established by the chamber of commerce: collecting freight, 2½ per cent.; attending to general average matters, and collecting contributions on the first $10,000, or any smaller amount, 5 per cent.; on any excess over $10,000 to $30,000, 2½ per cent; on any excess over $30,000, 1 per cent. On disbursements of a vessel, with funds in hand, 2½ per cent.; without funds in hand, 5 per cent.; procuring freight or passengers, 5 per cent.; chartering vessels on amount of freight, actual or estimated, 5 per cent.; accepting or paying a bottomry or respondentia bond (interest to be also allowed for time used), 2½ per cent.; on purchase of vessels, 2½ per cent.; for entering, clearing, and transacting a ship's business, on vessel with cargo or passengers, if under 500 tons register, $100; from 500 to 1,000 tons register, $150; over 1,000 tons register, $200.

At San Diego, California, pilotage is not compulsory; the charge for a pilot's services is $5 per foot draught each way, to which is added 4 cents per ton for vessels of upwards of 500 tons. Wharfage, $5 to $10 a day per vessel. Labor is usually $2.50 per day. Water costs 1 cent per gallon placed alongside the vessel. Ships' stores are about the same as at S. F. Steam coals, $20 per ton.

In Portland, Oregon, pilots look out for incoming and outgoing vessels; their charge for carrying over the bar of the Columbia a vessel drawing 12 feet, $8 per foot, and for each additional foot, $10; up and down from Astoria, $4 per foot each way. The river is at the lowest stage in October and the first half of November; vessels then can load in Portland, though drawing 16 to 18 feet; at full-moon tides, to 18 to 19 feet; at most other times, to 19½ and 20 feet. The towage in and out over the bar, at the mouth of the Columbia, to Astoria costs from $75 to $200 according to distance; from Astoria to Portland, ranging, as may be agreed upon, from $200 to $450 for the round trip up and down. The other charges a vessel has to pay in Portland are as follows: unloading ballast on

the wharf, free, but 30 to 35 cents per ton for carrying it away; discharging coal, 50 cents per ton, and general cargo the same rate; loading wheat and flour, 40 cents per ton; these staples are handled only in bags, but vessels must be ceiled the same as for cargo in bulk, 25 feet being required to the ton register, which cost for common shipping boards $10 to $12 per M.; the carpenter's bill will be 4 to 5 cents per ton register; shifting plank will be needed, at a cost of $20 to $22 per M.; old sails are used for lining and dunnage; the surveyor of the board of underwriters gets for his services $20; loading lumber costs $1.50 per M. feet; lighterage from Portland to Astoria is $1 each ton per barge load, and $1.25 per ton for small quantities per steamer; barges carry 550 to 650 tons. Water is free. Steam coals are worth from $6 to $8 per ton.

U. S. Tariff of Import Duties.

CONTRACTIONS AND MARKS: Mf., manufacture; mfd., manufactured; ch. val., chief value; p bush, per bushel; p c, per cent.; ct. cent; cts, cents; **, not otherwise provided for; ***, not specified or otherwise provided for.

COMESTIBLES.

ARTICLES.	DUTIES.
Almonds	5 cts per lb
do shelled	7½ do
Anchovies and sardines, in tin boxes, pay according to size of the box; whole boxes 10 cents, half boxes 5 cents, and quarter boxes, 2½ cents each	
Sardines, in any other form	40 p c *ad val*
Arrowroot	Free
Bacon	2 cts per lb
Barley	10 cts p bush
Malt, per bushel of 34 lbs	10 cts
Pearled, patent, or hulled	00½ ct per lb
Beef	1 ct per lb
Beet, sugar, seed of	Free
Cacao, crude, free; mfd or prepared	2 cts per lb
Cassava	Free
Cattle, meat, and hides, importation of forbidden, unless by special permission.	
Cheese	4 cts per lb
Chiccory root, ground or unground, burnt or prepared	2 do
Cinnamon, and chips of, unground	Free
Cocoanuts	Free
Coffee, all articles used or intended to be used as, or as substitutes for, *** 2 cts per lb; in berry	Free
Comfits, preserved in sugar, spirits, sirups, or molasses	35 p c *ad val*
Concentrated melado, testing by the polariscope, not above 75°, 1 2-5 cents per lb; for every additional degree, or fraction of a degree, 2-5 of a cent per lb additional.	
Confectionery, made wholly or in part of sugar, and valued above 30 cts per lb, or when sold by the box, package, or otherwise than by the pound	50 p c *ad val*
Corn, Indian	10 cts p bush
" meal, per bush of 48 lbs	10 cts
Currants, Zante or other	1 ct per lb
Curry and curry powder	Free
Dates	1 ct per lb
Eggs	Free
Extract of meat	20 p c *ad val*
Do saffron and safflower	Free
Farina	do
Figs	2 cts per lb
Filberts	3 do
Fisheries, whale, and other fish oil, American	Free
Fish, fresh, for bait	Free
Mackerel	1 ct per lb
Herrings, pickled or salted	⅓ ct per lb
Salmon, pickled	1 do
Foreign caught, not in barrels or half barrels, all *** 100 lbs	50 cts
Prepared or preserved otherwise than in oil	25 p c *ad val*
Preserved in oil, except anchovies and sardines	30 do
Shell, of all kinds	Free

ARTICLES.	DUTIES
Flour, root	Free
Do sago	Free
Fowls, land and water	Free
Fruits, green, ripe, or dried, ***	Free
Gelatine and similar preparations	30 p c *ad val*
Grapes, sugar, or glucose	20 do
Hams	2 cts per lb
Hay	$2 per lb
Honey	20 cts per gal
Ice	Free
Indian corn	10 cts per lb
Limes	20 p c *ad val*
Macaroni	Free
Meat, extract of, see Extract	
Mackerel	1 ct per lb
Melado, see concentrated melado.	
Molasses, concentrated and concrete, not above 75 deg, per gal	1 2-5 cts
Nutmegs	Free
Oat meal	½ ct per lb
Oats	10 cts p bush
Oleomargarine and other substitutes for butter	4 cts per lb
Olives, green or prepared	Free
Oranges, in barrels of not over 196 lbs	55 cts per bbl
In boxes, not over 2½ cubic feet	25 cts per box
Half boxes, per half box	13 cts
In bulk	$1.60 per M
In packages ***	20 p c *ad val*
Pickles and sauces, all ***	35 do
Pimento, unground	Free
Plums	1 ct per lb
Pork	do
Potatoes, per bush of 60 lbs	15 cts
Prepared meats of all kinds ***	25 p c *ad val*
Prunes	1 ct per lb
Raisins	2 cts per lb
Rice, cleaned	2¼ cts per lb
Do uncleaned	1¼ cts per lb
Flour	20 p c *ad val*
Meal	do
Rye	10 cts p bush
Flour	½ ct per lb
Saleratus	do
Salmon, prepared or preserved	25 p c *ad val*
Salt, in bags, sacks, barrels, or other packages, per 100 lbs	12 cts
In bulk, do	8 cts
Sardines and anchovies, see Fish.	
Do do in any other form not specified	40 p c *ad val*
Sauces and pickles, see pickles.	
Sauer kraut	Free
Sausages, Bologna	do
Sugar-beet seed	do
Sugar of milk	do
Sugar candy, not colored	5 cts per lb
Do do and all other confectionery *** made wholly or in part of sugar, valued at not over 30 cents per lb	10 do
Same, valued above 30 cts per lb, or when sold by the bag, package, or otherwise than by the pound	50 p c *ad val*
Sugars, all not above No. 13 Dutch standard in color, and all tank bottoms, sirups of cane-juice, or of beet-juice, melado, concentrated melado, concrete and concentrated molasses, not above 75 degrees, 2-5 cts. per lb. and for every additional degree or fraction thereof, 2-5 of a cent per lb. in addition. All above No. 13, are classified as follows:	
Above No. 13, not above No. 16	2¾ cts per lb
Above No. 16, not above No. 20	3 do
All above No. 20	3¼ do
Tinctured, colored, or in any way adulterated after being refined, valued at not over 30 cents per lb	10 do

ARTICLES.	DUTIES
Sweetmeats, preserved in sugar, spirits, sirup, or molasses, ***	35 p c *ad val*
Tamarinds	Free
Tank-bottoms	See Sugar
Tea (adulterated, or spurious, prohibited)	Free
Turtles	Free
Vegetables, in natural state, or in salt, or brine only	Free
Prepared or preserved	30 p c *ad val*
Vermicelli	Free
Vinegar, requiring not over 35 grains of bicarbonate of potash to neutralize 10 oz. Troy thereof	7½ cts p gal
Walnuts of all kinds	3 cts per lb
Wheat	20 cts p bush
Flower	20 p c *ad val*
Yams	Free
Tobacco leaf, of which 85 per cent is of the size and fineness suitable for wrappers, and of which over 100 leaves are required to weigh 1 lb., if not stemmed	75 cts per lb
Same, stemmed, $1 per lb., and the internal revenue tax of 8 cents per lb.	
All other in leaf, unmanufactured and not stemmed	35 do
Manufactured of all descriptions, and stemmed tobacco, ***, 40 cents per lb. and the internal revenue tax of 8 cts. per lb.	
Stemmed	15 cts per lb
Unmanufactured, ***	30 p c *ad val*
LIQUORS, WINES, ETC.	
Absinthe, $2 per proof gallon. In bottles, 3 cents in addition on each bottle.	
Alcohol, containing 94 per cent. anhydrous alcohol	$2 per gal
Amylic, or fusel oil	10 p c *ad val*
Alcoholic compound, *** $2 per gallon for alcohol therein, and	25 do
Alcoholic perfumery, $2 per gallon, and	50 do
Ale in bottles or jugs	35 cts per gal
Other than in bottles or jugs	20 do
Arrack, $2 per gal. in bottles, 3 cents additional on each bottle.	
Bay-rum or bay water, distilled or compounded, $1 per gallon for first proof, and in proportion for any greater strength.	
Beer in bottles or jugs, 35 cents per gallon; other than in bottles or jugs, 20 cents per gallon.	
Brandy and other spirits, manufactured or distilled from grain or other materials, *** $2 per proof gallon; if in bottles, 3 cents additional on each bottle.	
All spirituous liquors imported in casks of less capacity than 14 gallons, forfeited to the U. S.	
Coloring for	50 p c *ad val*
Cologne water	$2 per gal
Cordials, containing spirits, ***, $2 per proof gal.; if in bottles, 3 cents additional for each bottle.	
Distilled spirits, with 50 per cent. anhydrous alcohol	$1 per gal
Essence of rum	50 cts per oz
Gin, $2 per proof gallon, and if in bottles, 3 cents additional for each bottle.	
Ginger ale or ginger beer (no additional duty on bottles or jugs)	20 p c *ad val*
Lac spirits	Free
Porter, in bottles or jugs	35 cts per gal
Other than in bottles or jugs	20 do
Ratafia, $2 per gal.; if in bottles, 3 cts. additional on each bottle.	
Spirits, distilled, with 50 per cent. anhydrous alcohol	$1 per gal
Spirits, distilled, and spirituous liquors: all spirits manufactured or distilled from grain or other materials, and ***, $2 per proof gallon. Each and every gauge or wine gallon of measurement to be counted as at least one proof gallon. The standard for ascertaining proof of spirits or liquors of any kind to be that defined by the laws. Proof spirit is held to be that alcoholic liquor which contains one-half its volume of alcohol, of a specific gravity of 0.7939 and 60 degrees Fahr.	
All spirituous liquors imported in casks of less than 14 gallons are subject to forfeiture.	

ARTICLES.	DUTIES
Cordials, liquors, arrack, absinthe, kirchwasser, ratafia, and other similar spirituous beverages, or bitters containing spirits and ***, $2 per proof gallon. All imitations of brandy or spirits, or wines, by whatever names imported, are subject to the highest rate of duty for the genuine article, and in no case less than $1 per gallon.	
Vermuth, same duty as on still-wines, to-wit: in casks, 50 cents per gallon; in bottles, per case of 1 dozen bottles containing over 1 pint, and not over 1 quart, or of 24 bottles, each containing not over 1 pint, $1.60 per case; any excess over these quantities, in such bottles, subject to a duty of 5 cents for each pint or fraction thereof so in excess.	
Wines, champagne, and all other sparkling in bottles, if not over ½ pint each	$1.75 per doz
Same in bottles of over ½ pint, and not over 1 pint each	3.50 do
Same in bottles of over 1 pint, and not over 1 quart each	7.00 do
Same in bottles of over 1 quart each, $7 per dozen, and $2.25 per gallon on excess.	
Still, in casks	0.50 per gal
Same in bottles, per case of 1 dozen bottles, each containing over 1 pint, and not over 1 quart, or of 24 bottles, each containing not over 1 pint	$1.60 per case
Any excess pays 5 cents for each pint or fraction. No additional duty on bottles. Wines containing over 24 per cent. of alcohol are forfeited. No allowance made for breakage, leakage, or damage to wines or liquors of any kind	
Whiskey, $2 per proof gallon; if in bottles, 3 cents additional on each bottle	
MEDICINAL, AND NOT EDIBLE.	
Barks, beans, berries, balsams, buds, bulbs, bulbous roots, excrescences, such as nutgalls, fruits, flowers, dried fibres, grains, gums, gum-resins, herbs, leaves, lichens, mosses, roots, stems, spices, vegetables, aromatic seeds (not garden), and seeds of morbid growth, weeds, and dried insects, advanced in value or condition by refining, or grinding, or by other processes of manufacture, and **	10 p c *ad val*
Same, and woods used expressly for dyeing, and drugs in a crude state, and not advanced in valuation by refining or grinding, etc. ***	Free
Nux vomica	do
Other medicinal preparations, if they have alcohol, 50 cents per pound; other kinds	25 p c *ad val*
Patent medicines of all kinds	50 do
INDIA-RUBBER.	
Crude, and milk of	Free
Articles of **	25 p c *ad val*
Boots and shoes	do
Part wool, worsted, or hair, 45 cents per pound.	
Fabrics partly of, and of silk, S. ch. val	50 do
Fabrics, wholly or partly of ***	30 do
Same, if in part wool, worsted, or hair webbings, 30 cents per pound, and	50 do
Indigo and artificial indigo	Free
Indigo, carmined	10 p c *ad val*
Indigo, extracts of	10 do
Leather, all ***	15 do
All manufactures, and articles wholly or partly of ***	30 do
Band or belting	15 do
Calf skins, tanned, or tanned and dressed, and dressed upper leather of all other kinds ***	20 do
Old scraps	Free
Skins, dressed and finished, of all kinds***	20 p c *ad val*
Skins for morocco tanned, but unfinished	10 do
Morocco skins, finished	20 do
Spanish, or sole	15 do

ARTICLES.	DUTIES
COTTON TISSUES.	
Cotton, crude	Free
Bagging, valued at not over 7 cents per square yard, 1¾ cents per pound, braces, braids, cards, corsets, galloons, gimps, goring, suspenders, webbing, and all other manufactures of cotton ***	35 p c *ad val*
And silk, hatter's plush of	25 do
Cloths, as follows:	
Piece goods, not exceeding 100 threads to the square inch, counting warp and filling, unbleached, 2½ cents per square yard; bleached, 3¼ cents per square yard; dyed, colored, stained, painted, or printed	4½c p sq yd
Those counting over 100, and not over 200 threads, unbleached	3c do
Bleached	4c do
Dyed, colored, stained, painted, or printed	5c do
All counting not over 200 threads, unbleached, valued at over 8 cents per square yard; bleached, valued at over 10 cents per square yard; dyed, colored, etc., valued at over 18 cents per square yard	40 p c *ad val*
Those counting over 200 threads, valued at 4, 5, and 6 cents per square yard, respectively; and such as are valued at over 10, 12, and 15 cents per square yard, respectively, pay	40 do
Cloths of mixed materials, cotton comp of ch val and no part of wool, worsted, or hair, are dutiable at the highest rates, at which cloths of like count, wholly of cotton, are dutiable under the above schedule; damask, embroideries, hemmed handkerchiefs, insertings, laces, lace window curtains, trimmings, and velvet	40 pc *ad val*
Hat bodies	35 do
Hose, half hose, stockings, shirts, and drawers, however made, wholly of cotton, or cotton ch val, and no part wool, worsted, or hair	40 do
The same, and all other goods, all cotton, made on knitting machines or frames, and **	35 do
Mfs of ***	do
Mfs of mixed materials *** cotton component of ch val, and no part wool, worsted or hair	do
Spool thread, when on spools of not over 100 yards each, per doz spools	7 cts
If over 100 yards, subject for every 100 yards, or fraction thereof, in excess of 100 yards, to an additional duty of 7 cts per doz spools.	
Thread, yarn, warp, or warp-yarn, all except spool thread, to wit: valued not over 25 cts per lb	10 cts per lb
Valued over 25 and not over 40 cts	15 do
Do 40 do 50 do	20 do
Do 50 do 60 do	25 do
Do 60 do 70 do	33 do
Do 70 do 80 do	38 do
Do 80 do $1	43 do
Do $1	50 p c *ad val*
Ties or hoops for baling pps of iron or steel, not thinner than No 20 wire gauge, and finished	35 do
Do do when not finished, those of iron are subject to hoopiron, and ¼ of a ct per lb in addition.	
Water	Free
Webbing ***	35 p c *ad val*
Damask	40 do
LINEN, HEMPEN, AND JUTE.	
Burlaps, not exceeding 60 inches in width, of flax, jute, or hemp, or of which either of these substances is the component material of ch val	30 do
Exceeding 60 inches in width	40 do
Brown and bleached linens, ducks, canvass, diapers, crash, huckaback, handkerchiefs, lawns, or other mfs not specified,	

ARTICLES.	DUTIES
of flax, hemp, or jute, or of which either of said substances is the comp mat of ch val	35 p c *ad val*
Russia and other sheetings	do
Sail cloth	30 do
Bagging composed wholly or in part of hemp, jute, or flax	40 do
Lace, insertions, and embroideries	30 do
All other mfs of flax, or of which flax is the comp mat of ch val, including underclothing, tapes, braids, stockings, etc., and all goods that cannot be measured by the yard	40 do
All other mfs of hemp or Manila	35 do
Do do jute	do
Oil-cloth foundations, or flour-cloth canvas	40 do
WOOL AND WOOLLEN FABRICS.	
Unmfd, unscoured, and unwashed as follows:	
All "Class 1," or clothing wools, such as, merino, mestizo, metz, metis, or other wool of any merino blood; down clothing wools, and wools of like character with any of the above (including all wools not described or designated in classes II and III), the value of which at the last port or place whence exported to the United States, excluding charges in such port, shall be 30 cts or less per lb	10 cts per lb
The same of greater value	12 do
All class No. 2, or combing wools, viz: Leicester, Cotswold, Lincolnshire, down combing, Canada long wools, or other like combing wools of English blood, usually known by these terms, and all hair of the alpaca, goat, or other like animals, the value of which at the last port or place whence exported to the U. S., excluding charges in such port, shall be 30 cts or less per lb	10 cts per lb
The same of greater value	12 do
All class No. 3, or carpet and similar wools, such as Donskoi, native So. American, Córdoba, Valparaiso, native Smyrna, and others of like character, the value of which at the last port or place whence exported to the U. S., excluding charges in said port, shall be 12 cts or less per lb	2½ do
The same of greater value	5 do
Rates to be doubled on any of the above wools or hair when the same are not imported in the ordinary condition, or are changed to evade the duty, or reduced in value by the admixture of dirt or other foreign substances.	
Also on wool of first class, if washed, and to be trebled on wool of all classes, if scoured.	
Wools, short pieces or knots of wool, classified as wool, and not as "wool waste."	
Same, fine, imported in the oily state, dutiable as washed wool of class 1.	
Same, of coarse wool, as washed wools of 3d class.	
Wools on the skin, including hair of the alpaca, goat, and other like animals on the skin, the same rates as other wools, the quantity and value ascertained under treasury regulations.	
Woollens and manufactures of wool as follows:	
Manufactures of wool, or in part of wool, in an unfinished state, to be appraised as finished.	
Manufactures wholly or partly of wool ***, valued at not over 30 cents per lb., 35 cents per lb. and	35 p c *ad val*
Valued at over 30 cents, 35 cents per lb. and	40 do
Cloaks, overcoats, and other outside garments for ladies and children, and goods of like description or used for like purposes, wholly or partly of wool (except knit goods), 45 cents per lb. and	40 do
Balmoral skirts or skirting and goods of like description, or used for like purposes, wholly or partly of wool, made up or manufactured, 40 cents per lb. and	35 do
Cloths, wholly or partly of wool, valued at not over 30 cents per lb., 35 cents per lb. and	35 do
Valued at over 30 cents, 35 cents per lb. and	40 do

ARTICLES.	DUTIES
Hats of, or partly of, valued at not over 80 cents per lb., 10 cents per lb. and	35 p c *ad val*
Valued at over 80, and not over 40 cents per lb., 12 cents and	35 do
Valued at over 40, and not over 60 cents per lb., 18 cents and	35 do
Valued at over 60, and not over 80 cents per lb., 24 cents and	35 do
Valued at over 80 cents, 35 cents per lb. and	40 do
Ready-made clothing and wearing apparel of all kinds, ***, wholly or partly of wool (except knit-goods), 40 cts. per lb. and	35 do
Woollens, rags, shoddy, mungo, waste, and flocks	10 cts per lb
Ready-made clothing and apparel of all kinds, ***; wholly or partly of (except knit goods), 40 cents per lb. and	35 p.c. *ad val.*
Shawls, wholly or partly of wool, valued at not over 80 cents per lb., 35 cents per lb. and	35 do
Valued at over 80 cents per lb., 35 cents per lb. and	40 do
Yarns:	
Valued at not over 30 cents per lb., 10 cents per lb. and	35 do
Valued at over 30 cents, and not over 40, 12 cents per lb. and	35 do
Valued at over 40 cents, and not over 60, 18 cents per lb. and	35 do
Valued at over 60 cents, and not over 80, 24 cents per lb. and	35 do
Valued at over 60 cents, 35 cents per lb. and	40 do
Worm-gut, manufactured or unmanufactured	Free
Worsted, all cloaks, overcoats, and other outside garments for ladies and children, and goods of like description, or used for like purposes, wholly or partly of, (except knit goods), 45 cents per lb. and	40 p c *ad aal*
All manufactured, wholly or partly of, and not part wool, ***, valued at not over 30 cents per lb., 10 cents per lb. and	35 do
Valued at over 30, and not over 40 cents, 12 cents per lb. and	35 do
Valued at over 40 and not over 60 cents, 18 cents per lb. and	35 do
Valued at over 60, and not over 80 cents, 24 cents per lb. and	35 do
Valued at over 80 cents per lb, 35 cents per lb. and	40 do
Worsted yarns:	
Same schedule of valuations and duties as worsted manufactures.	
SILK.	
All manufactures of, or of which silk is the comp. material of chief value, not specified or otherwise provided for	50 do
The last law repealed the old provision for goods of silk chief value, whereof cotton, flax, wool or worsted compose 25 per cent. or more of the value. In regard to sewing silk, twist, and floss, it specifies at 30 per cent. only those in the gum. All raw, or as reeled from the cocoon, but not doubled, twisted, or advanced in manufacture in any way	Free
Bolting cloths	do
Cocoons	do
Floss in the gum	30 p c *ad val*
Floss purified	50 do
Partially manufactured from cocoons or from waste silk and not further advanced or manufactured than carded or combed silk	50 cts per lb
Or silk and cotton, hatters' plush of	25 p c *ad val*
Sewing, in the gum	30 do
Sewing, purified	50 do
Singles, tram, or organzine	30 do
Spun	30 do
Threads or yarns, all kinds, **	30 do
Thrown, in the gum, not more advanced than singles, tram, or organzine	30 do
Twist, in the gum	30 do
Twist, made up into forms for buttons exclusively	10 do
Twist, purified	50 do
Waste	Free
Worms' eggs	do
All goods with selvages wholly or in part of other materials, or with threads of other materials for the purpose of changing the classification, are dutiable at 9 cents per square yard, and 40 per cent. *ad val.*, but on such goods weighing over 4 ounces per sq. yard, 35 cts. per yard and 40 per cent. *ad val.*	

ARTICLES.	DUTIES
WOODS.	
Manufactures, and articles of ***	20 p c *ad val*
Same, further advanced	35 do
Heading, shingle, and stave-bolts	Free
Barrels	30 p c *ad val*
Cabinet-ware, and house furniture, finished	35 do
Cabinet or house furniture, in piece, or rough, not finished	30 do
Clapboard, pine	$2 p M
Spruce	$1.50 p M
Laths, 15 cents per M. pieces.	
Packing-box shooks ***	30 p c *ad val*
Palings	20 do
Pickets	20 do
Shingles	35c p M
Staves of all kinds	10 p c *ad val*
Sugar box shooks ***	30 do
Railroad ties of	Free
Tar	10 p c *ad val*
Unmanufactured ***	20 do
Cabinet, manufactures of:	
Of cedarwood, granadilla, ebony, mahogany, rosewood, and satinwood	35 p c *ad val*
All unmanufactured	Free
Cedar, lignumvitæ, lancewood, ebony, box, granadilla, mahogany, rosewood, satinwood, and all cabinet woods unmanufactured	do
IRON.	
Band, hoop, scroll, or other iron, **, not over 8 inches wide, and not thinner than No. 10 wire gauge	1c p lb
Same, thinner than No. 10, and not thinner than No. 20, 1 1-5 cents per pound, provided that all articles *** (whether wholly or partly manufactured) made from sheet, plate, hoop, band, or scroll iron, or of which either of these shall be the mat. of ch. val. shall pay, in addition to the duty on such iron, ¼ cent per pound.	
Bar, rolled or hammered, except channel iron, as follows:	
Flat, not under 1 inch wide, nor under ⅝ inch thick	1 1-10c p lb
Round, not under ¾ inch diameter	1c p lb
Round, under ¾ inch, and not under 7-16 inch diameter	1 1-10c p lb
Square, not under ¾ inch	1c p lb
Square, under ¾ inch square, 1 1-10 cents per pound, provided that all iron in slabs, blooms, loops, or other forms less finished than iron in bars, and more advanced than pig iron, except castings, shall be rated as iron in bars, and pay duty accordingly, and none of the above shall pay a less rate of duty than all iron bars, blooms, billets, or sizes or shapes of any kind, in the manufacture of which charcoal is used as fuel, shall be subject to $22 per ton.	
Charcoal-iron:	
Round, in coils, or rods, under 7-16 inch in diameter **	1 1-5c p lb
Rolled, bars, or shapes of **	do
Steel bars, rods, and strips, or steel sheets, of whatever shapes, and on all iron or steel bars of irregular shape or section, cold-rolled, cold-hammered, or polished in any way, in addition to the ordinary process of hot-rolling or hammering, there shall be paid, besides the rates on such ordinary bars, rods, strips, or sheets, 1 cent per pound in addition.	
Boiler or other plate, sheared or not, and skelp-iron, sheared or rolled in grooves	1¼c p lb
Sheet, common, or black, thinner than 1½ inch, and not thinner than No. 20 wire guage	1 1-10c p lb
Thinner than No. 20, and not thinner than No. 25 wire guage	1 2-10c p lb
Thinner than No. 25, and not thinner than No. 29 wire guage	1 5-10c p lb
Thinner than No. 29 wire guage	30 p c *ad val*

ARTICLES.	DUTIES
All the above when cold-rolled and pickled, or cleaned by acid or otherwise, must pay in addition to the above rates, ¼ cent per pound.	
All commercially known as common, or black taggers' iron, in boxes, bundles, or otherwise	30 p c *ad val*
Same, cold-rolled and pickled, or cleaned by acid or otherwise, ¼ cent per pound and	30 do
Taggers', cold-rolled and pickled, or cleaned by acid or otherwise, ¼ cent per pound and	30 do
Railway bars, of over 25 pounds per yard	7-10c p lb
Sheets and plates, galvanized, or coated with zinc, spelter, or other metals, or any alloy thereof, excepting tin plates, templates, and taggers' tin, pay ¾ cents per pound in addition to the duties thereon, when not so covered.	
No allowance or reduction of duties for partial loss or damage, in consequence of rust or discoloration.	
Called spiegeleisin, 0.3 of, 1 cent per pound.	
In pigs 0.3 of, 1 cent per pound.	
Kentledge, 0.3 of, 1 cent per pound.	
Plate, sheet, or taggers', by whatever name designated, other than polished, planished, or glanced sheet-iron, must, if cold-rolled and pickled, and cleaned by acid or otherwise, pay ¼ cent per pound more duty than the corresponding gauges of common or blacksheet, or taggers' iron.	
Sheet, corrugated or crimped, per lb	1 2-5 cts
Sheets or plates, or taggers' iron, coated with tin or lead, or with a mixture in part of these, by dipping or otherwise, and commercially known as tin plates, templates, and taggers' tin	1 ct per lb
Sheet, polished, planished, or glanced	2½ cts per lb
Ore, including manganiferous iron ore, also the dross or residuum from burnt pyrites	75 cts per ton
Mf of iron, all articles *** (whether wholly or partly mfd), made from sheet, plate, hoop, band, or scroll iron, or of which either of these shall be the mat of ch val, pay in addition to the duty on such iron	¼ ct per lb
Anchors, or parts of	2 cts per lb
Anvils	do
Mfs, articles and wares *** wholly or partly of iron, mfd	45 p c *ad val*
Malleable, castings of, ***	2 cts per lb
Or steel:	
Angles	1¼ cts per lb
Beams, bulb, deck, and others	do
Building frames	do
Car-truck channels	do
Channels	do
Girders	do
Joists	do
TT columns and posts, or parts or sections thereof, and all other structural shapes of iron and steel	do
Or steel axles, or parts thereof, axle bars, axle blanks, and forging for axles, without regard to stage, or state, or mf	2¼ do
Brads, cut, not over 16 oz to to the M	2½ cts p M
Over 16 oz	8 cts per lb
Cast, and irons of	1¼ ct per lb
Hatters' irons of	do
Castings of ***	do
Casts, pipes of, all kinds	1 do
Plates of	1¼ do
Sadirons of	do
Stove-plates of	do
Tailors' and hatters' irons of	do
Vessels **	do
Hollow ware, coated, glazed, or tinned	3 do
Horseshoes, hob, wire, and all wrought nails of ***	4 do
Mill irons and mill cranks of wrought iron	2 do
Scrap, wrought and cast (to include nothing but waste or refuse iron that has been in actual use, fit only for remfg)	3-10 ct p lb

ARTICLES.	DUTIES
Springs, cut, not over 16 oz to the M	2½ cts per M
Over 16 oz	3 cts per lb
Tacks, cut, not over 16 oz to the M	2½ cts per M
Over 16 oz	3 cts per lb
Or steel, blacksmiths' hammers and sledges	2½ do
Crowbars	do
Finished hinges or hinge blanks of	do
Cotton ties, or hoops for baling pps, not thinner than No. 25 wire gauge, and finished	35 p c *ad val*
When finished, those of iron, subject to hoop-iron rates and ¼ of a ct per lb in addition.	
Flat nails, finished	4-5 ct per lb
Forgings of, or forged iron, of whatever shape or stage of mf ***	2½ cts per lb
Forgings of, for vessels, steam engines, and locomotives, or parts thereof, weighing each 25 lbs or more	2 do
Ingots, cogged ingots, blooms or blanks for railway wheels, and tires, or parts thereof, without regard to the deg of mf	do
Locomotive, car or other railway tires, or parts of, wholly or partly mfd	2¼ do
Railway fish plates, or splice bars	1¼ do
Iron or steel rivets, bolts, with or without threads or nuts, or bolt-blanks	2½ do
Rivet, screw, nail, and fence wire-rods, round, in coils and loops, not lighter than No. 5 wire gauge, valued at not over 3½ cts per lb	3-5 do
Rods, flat, with longitudinal ribs, for mf of fencing	do
Tee-rails of, not over 25 lbs per yd, per yd	9-10
Track-tools	2½ cts per lb
Wedges	do
Wrought iron, for ships	2 do
Wrought, spikes of	2 do
Nuts and washers of	2 do
Horse, mule, and ox shoes of	2 do
STEEL.	
Angles, beams, bulb, deck and others, building forms, car truck channels, channels, girders, joists	See Iron
T T columns, posts, etc	do
Axles, etc	do
Blacksmiths' hammers and sledges	2½ cts per lb
Board-nails and spikes, cut	1¼ do
Circular-saw plates:	
Valued at not above 4 cents, 1 cent per lb. and	45 p c *ad val*
Valued at above 4 cents, and not above 7 cents, 3 cents per lb.	
Valued at above 7 cents, and not above 10 cts., 3¾ cts. per lb.	
Valued at above 10 cents, 4¼ cents per lb.	
Cotton-ties, etc	See Iron
Crowbars	2½ cts per lb
Flat-rails, forgings of, for vessels, steam engines and locomotives, horseshoe, bob, wire and all other nails of ***	See Iron
Not specified **	45 p c *ad val*
All metals produced from iron or its ores, which is cast and is malleable, of whatever description or form, without regard to the percentage of carbon contained therein, whether produced by cementation, or converted, cast, or made from iron, or its ores, by the crucible, Bessemer, pneumatic, Thomas-Gilchrist, basic, Siemens-Martin, or open-hearth process, or by the equivalent of either, or by the combination of two or more of the processes, or their equivalents, or by any fusion or other process, which produces from iron or its ores, a metal granular or fibrous in structure, which is cast and malleable, excepting what is known as malleable iron castings, shall be classed and denominated as steel.	
Manufactures, articles and wares, ***, wholly or partly of, whether wholly or partly manufactured	45 p c *ad val*
Manufactures, the following, namely: alloys, used as substitutes for steel tools; bands; bars, bars tapered or beveled;	

ARTICLES.	DUTIES
billets; blanks of sheet or plate steel, or combination of steel and iron, punched or not, other than those for railway tires and wheels; blooms other than those for railway tires or wheels, by whatever process made; castings, all descriptions and shapes of dry sand, loam, or iron molded; cogged ingots other than for railway tires and wheels, by whatever process made; connecting-rods; crank-pins; die-blocks or blanks; gun-molds, not in bars; hammer-molds, or swaged steel, hoops; ingots other than for railway tires and wheels, by whatever process made; piston-rods; plates of all thicknesses and widths; pressed, sheared, or stamped shapes of; rods, connecting and piston; shafts, steamer, crank or other; sheets of all gauges and widths; slabs; strips; swaged steel or hammer molds; wrist-pins: all of the above classes of steel, ***, valued at not above 4 cents per lb	45 p c *ad val*
Valued above 4 cents and not above 7 cents	2 cts per lb
Valued above 7 cents and not above 10 cents	2¾ do
Valued above 10 cents	3½ do
On all iron or steel bars, rods and strips, or steel sheets, etc	See Iron
Steel or part steel railway bars, of over 25 lbs. per yard	$17 per ton
Plates, engraved	25 p c *ad val*
Railway fish plates or splice bars	1¼ cts per lb
Rivet, screw, nail and fence wire rod, round, in coils and loops, not lighter than No. 5 wire gauge, valued at not over 3½ cents per lb	6-10 cts p lb
Rods, flat with longitudinal ribs for manufacture of fencing,	6-10 do
Scrap, wrought and cast (to include nothing but waste or refuse steel that has been in actual use, and is fit only for re-manufacture	8-10 do
Sheet, by whatever name designated	2¼ do
Sheet, corrugated or crimped	1 4-10 do
Sheets and plates, galvanized or coated with zinc, spelter, or other metals or any alloy thereof (excepting tin-plates, templates, and taggers' tin, specified below) pay ¾ cents per lb., in addition to the duties thereon, when not so covered.	
Sheets or plates coated with tin or lead, or with a mixture in part of steel, by the dipping or other process, and commercially known as tin-plates, templates, and taggers' tin	1 ct per lb
Tee rails of not over 25 lbs. per yard	9-10 cts p lb
Rivets, bolts, with or without threads or nuts, or bolt blanks	2¼ do
Track tools	2½ do
Wedges	2½ do
Wheels and steel tired wheels for railway purposes, wholly or partly finished	2¼ do
Locomotive, car, and other railway tires or parts thereof, wholly or partly manufactured	2¼ do
Wrought horse, mule, and ox shoes of	2 do
Wrought nuts and washers of	2 do
Wrought spikes of	2 do
TIN.	
Manufactures wholly or partly of, finished or not, and ***	45 p c *ad val*
Ore	Free
COPPER.	
All composition of which copper is a comp mat of ch val ***	8c p lb
All mfs of, or of which it shall be comp mat of ch val ***s	35 p c *ad val*
Clippings from new	8c p lb
Imported for U. S. mint	Free
In form of ores, ou all fine copper contained therein	2½c p lb
In plates, bars, ingots, Chili, or other pigs, and in other forms not manufactured or enumerated	4c p lb
In rolled plates, called brazier's copper, sheets, rods, pipes, copper bottoms, and all manufactures of copper, or of which copper shall be comp mat of ch val ***	35 p c *ad val*
Manufactured articles or ware, *** wholly or partly of, whether wholly or partly manufacfured	45 p c *ad val*

ARTICLES.	DUTIES
Old, fit only for re-manufacture	3c p lb
Copper, old, taken from the bottoms of American vessels, compelled by marine disaster to repair abroad	Free
Regulus of, and black or coarse, and cement of, on all fine copper contained therein	3½c p lb
Sheathing, or yellow metal, not wholly of copper, weighing from 14 to 34 ounces, per square foot	35 p c *ad val*
ZINC.	
In blocks or pigs	1½c p lb
Old, worn out, and fit only to be re-manufactured	do
Sheets	2½c p lb
Manufactures, wholly or partly of, finished or not, and not enu	45 p c *ad val*
Oxide of, dry	1¼c p lb
Oxide, in oil	1¾c p lb
MISCELLANEOUS ARTICLES.	
Carriages	35 p c *ad val*
Clocks and watches:	
Chronometers and parts thereof	10 do
Clocks and parts thereof	30 do
Watches " "	25 do
Watch cases	25 do
Twine	40 do
Hats:	
Of silk or felt	30 do
Of wool, according to value, from over 30 cents each, to not over 80 cents, a fixed duty, besides	35 do
Valued at over 80 cents, a fixed duty, and	40 do
Horses	20 do
Animals imported expressly for breeding purposes, upon proof of it	Free
Household furniture, unfinished, in pieces, or rough	30 p c *ad val*
Finished	35 do
Matches, besides excise duty	35 do
Pianos	25 do
Pictures	30 do
Ships and boats	Prohibited
Straw plaiting for hats	20 p c *ad val*
Toys	35 do
Umbrellas and parasols:	
Of silk or alpaca	50 do
Of other materials	40 do
Ribs, frames, handles &c., chiefly of metal	40 do
Frames and sticks, other kinds	30 do
Glass:	
Flint and lime glass bottles, and phials, and other plain, moulded, or pressed, flint, or lime glassware, not otherwise mentioned	40 do
Glassware of all kinds, cut, engraved, painted, colored, stained, gilt, or silvered (except looking glasses and silvered plate glass)	45 do
No mirrors or looking glasses, when framed, will be admitted at a less rate of duty than is chargeable upon smaller glasses, etc., unframed, and will be liable to a duty on the frames in addition, of	30 do
Porcelain and bohemian glass, chemical glassware, and all other manufactures of glass, or of which glass is the comp. mat. of ch. val., not otherwise specified	45 do
Imitation gems	10 do
Glass plates or discs, unwrought, for optical instruments	Free
Beads, bugles, and bead ornaments	50 p c *ad val*
Jewelry of all kinds	25 do
Diamonds, rough or uncut	Free
Do for glaziers	do
Musical instruments, strings and cords for them	do

ARTICLES.	DUTIES
DYES.	
Dyeing, articles in a crude state used in, ***	25 p c *ad val*
Woods used expressly for, crude ***	do
Same, not altogether crude ***	10 do
Dyeing, woods used for ***	10 do
Dyes, coal tar, all **	35 do
Dyewoods, extracts and decoctions of	10 do

British vessels arriving at ports of the United States from the Bermudas, together with their cargoes, are admitted on the same terms, as to duties, imports, and charges, as those of the former. The various ports have especial ordinances in force for the preservation of order, and a quarantine is strictly observed, Castle, one of their best harbors, being mostly used for quarantine purposes.

The following are the facilities afforded to, and charges levied on vessels arriving at St. George, which is the chief port of the islands: for the use of the marine slip there is a fixed daily rate per ton; a ship of 500 tons pays 3s. 4d. per ton, and one of 1,000 tons 5s. 5d. per ton for the first day; after the first day, 1s. per ton per day is charged. There is a large floating dock, 381 feet long and 124 feet broad, at Ireland island belonging to the government. The pilotage, from the sea, ranges for sailing vessels from £3 12s. for 8 feet draught, to £9 for 20 feet draught, with 4s. 6d. for each additional half foot; for steam vessels, from £3. 4s. for 8 feet draught, to £8 for 20 feet, with 4s. for each additional half foot; to sea, for sailing vessels, from £2 16s. for 8 feet draft, to £7 for 20 feet, with 3s. 6d. for each additional half foot; for steamers, from £2 8s. for 8 feet to £6 for 20 feet, with 3s. for each additional half. Wharfage: vessels of 100 tons, when unloading, $1.20 per day; larger vessels, about 25 cents for every additional 50 tons. Light dues, 8 cents per ton. There is telegraphic communication, by submarine cable, with the United States, and hence with Europe, etc. The charges for transacting the business of a vessel in distress are: commission on disbursements, 5 per cent.; if the cargo is partly landed and reshipped 2½ per cent. on the invoice value; if it is sold at public auction, wholly or in part, 2½ per cent. additional on all the cargo sold; auctioneer's fee, 5 per cent.; government tax on the same amount 2½ per cent. The government of the Bermudas passes generally in June a customs tariff for the sake of obtaining revenue; the rates are quite moderate, the highest being 10 shillings per 100 lbs. of unmanufactured arrowroot, 10 shillings per thousand cigars, 4 shillings per gallon on alcoholic liquors, 4 shillings per head on neat cattle. Some articles have levied on them 15 per cent. ad valorem; malt liquor, cider, and perry are taxed £1 per hhd; alcohol, arrack, brandy, gin, whiskey, rum, and a few other things, which formerly paid 4 shillings per gallon, were subjected by an act of March 20th, 1884, to an additional duty of 25 per cent. Articles for the government and church, and for the promotion of industry, art, and education, and many staples of food are exempt from duty.

The Bahamas group has a number of ports open to foreign trade, the chief being Nassau. The colonial government establishes its own rates of charges on vessels coming to its ports, and the import and export duties on merchandise.

The following are the port charges paid by vessels at Nassau: Tonnage dues, 1 shilling per ton inward, and the same outward for vessels with cargo; wharfage, £1 10s. per 100 tons register; light dues, 3 pence per ton register. There are a dry dock and a railway with facilities for repairing ships of considerable size. The customs tariff establishes specific duties on most articles, and ad valorem rates on others; a few articles are subjected to both systems. The following is a synopsis of the tariff; cider, 20 per cent.; cigars, 15 per cent. and 8 shillings per M.; cordials, 20 per cent.; hulks and materials of vessels, 20 per cent.; essential oils, 20 per cent.; wines of all kinds, 20 per cent., and 2 shillings per gallon. Articles not enumerated in the tariff are rated at 20 per cent. ad valorem. The specific duties range from 12 shillings per 100 lbs. of refined sugar, to 2 shilling per 100 lbs. of rice. Importations for the government, and for the promotion of industries are exempted from duties. An export

duty of 2 shillings is levied on guano and earths; and 1¼ per cent. on imported articles re-exported, unless they had already paid an import duty. In 1878, the export duty on vessels in distress was abolished, as also the license fee paid by wreckers; and the income tax which had been levied on public officers was repealed. In the early part of 1888 the legislature laid a duty of 20 per cent. ad valorem on hemp, which was formerly exempt from duty, and added a number of new articles to the free list, including steam launches, barrels, staves, lath, and articles used for packing.

British Honduras, like other British colonies, establishes her own tariff of charges on vessels, and duties on merchandise. The customs tariff, regulated in 1885, is evidently one for revenue only. The duties on imports are usually varied from year to year, the average being about 5 per cent. on the invoiced value.

Cigars pay an import duty of $6 per M.; beef and pork, $1 per 200 lbs.; lumber, $1 per M. feet; opium, $2 per lb.; wines, $1.50 per gallon: cordials, liqueurs, etc., $2 per gallon, and methylated spirits, $1 per gallon. The import duties on other articles range from 50 cents down to 2 cents. The free list is quite large. Spirits and strong waters manufactured in the colony pay an excise duty of $1.25 per gallon. The port charges at Belize are as follows: pilotage, $2.50 per foot inward, and $3 per foot outward; hospital dues, $1.50 per man of the crew; light dues, 12½ cents per ton register; anchorage, $9; clearance, $30: lighterage, about 50 cents per ton, paid by the vessel. There are warehouses for the storage of goods at fair rates.

A law of 1873 consolidated all the enactments relating to harbors in the island of Jamaica and its dependencies. This law provided among other things for the constitution of harbors, the appointment of harbor masters, the removal of wrecks and other obstructions in harbors, preservation, repair, and removal of buoys, etc., and also fixes the scale of fees to be paid to harbor masters, and places all harbors and harbor masters under the superintendence of the pilotage and harbor board of the district in which the harbors are situated. The harbor master is charged with the duty of preserving order in the harbor, and to see that all laws to that end are strictly carried out. The quarantine regulations of Jamaica have been greatly modified since 1851. The governor in privy council may declare any port or place to be an infected port or place within the meaning of the quarantine law of 1869, and vessels arriving from such port or place are liable to quarantine, the duration, etc., of which depend upon the circumstances of each case, and is left to the discretion of the quarantine board. A vessel arriving from a port or place not declared to be infected, and not having on board at the time of arrival any infectious disease, or not having had any death from such disease during the voyage, will be admitted by the health officer to free pratique. When a vessel arrives without a bill of health from the last port touched at, her surgeon, if she have one, or her commander must certify in writing that such port was at the time of his departure therefrom free, to the best of his knowledge, from any infectious disorder.

The following rules were made in 1874 for carrying out the quarantine law:

1. Ships placed in quarantine by the health officer are to hoist the yellow flag at the fore-top-gallant mast head, and are to take up an anchorage without delay in the quarantine ground, where they are to remain until released by order of the quarantine board.

2. The quarantine ground shall be pointed out by the visiting officer.

3. A constable is to be placed on board each ship in quarantine, and is to see that all rules and regulations in respect of quarantine are strictly carried out.

4. No personal communication is to take place between vessels in quarantine and the shore. No boats from the shore, or from other boats or vessels, whether in quarantine or not, shall be allowed to have personal communication with a ship in quarantine.

5. No ship shall be allowed to make fast to the quarantine buoy placed to mark the quarantine ground, or to anchor within 100 yards of that buoy.

6. Lighters or boats conveying cargo, or coals, or other supplies to ships in quarantine may be towed to the quarantine buoy; and to prevent personal communication with the ships in quarantine all persons on board such boats or lighters must then quit them and return outside the limits of the quarantine grounds.

7. The boats or lighters so left may then be towed alongside the ship in quarantine by her crew and unloaded, but no packages are to be returned to the boats or lighters from the ship. When the boats or lighters are empty they are to be towed back by the crew of the ship to the quarantine buoy, and after the men so employed have left them the persons who may be in charge of such boats or lighters may proceed to the quarantine buoy to fetch them away.

8. All boats belonging to ships in quarantine are to hoist a yellow flag in the bow when absent from their ships.

9. Passengers in ships that are placed in quarantine may, with the sanction of the visiting officer, be landed in the ship's boats at such lazaretto or place as may be pointed out by the visiting officer subject to his instructions and supervision.

10. Cases of sickness among the crew or passengers of ships in quarantine may, with the sanction of the visiting officer, and under his instruction and supervision, be landed in the ship's boats at the lazaretto.

11. No articles of clothing or bedding that have been used in cases of disease shall be permitted to be landed.

12. The mail bags from a ship in quarantine shall, before being landed, undergo such process of fumigation as the visiting officer may consider necessary.

13. Any person who may have died on board a ship in quarantine shall be be buried in such place as shall be pointed out by the visiting officer.

14. In case of a ship in quarantine proceeding to sea, the constable shall be previously landed at the lazaretto. The pilot, who accompanies the ship to sea, shall proceed, on his return, to the lazaretto, and both constable and pilot shall remain there in quarantine for the same period as the ship would have been kept if she had remained at anchor.

15. In the cases where the quarantine board may think that the nature of the contagious or infectious disease is such as to render it unnecessary to keep the ship in which any case of such disease shall have occurred in quarantine for so long a period as fourteen days, or if there be other circumstances to justify any shortening of the period of fourteen days of quarantine, the quarantine board may, if they shall think fit, admit a vessel to pratique at an earlier period than the period of fourteen days, provided in section 15, of law 37, of 1869.

16. Any person who may be found guilty of any infringement of any of these rules and regulations shall be subject to a penalty not exceeding ten pounds.

The following further rules for carrying out the quarantine law have been in force since 1884.

If at any time by reason of the failure to comply with any rule of this board, or for any other sufficient reason, it should be found impracticable to receive passengers that are on board a ship placed in quarantine into the lazaretto, or other place that may be approved of by the quarantine board, such passengers will be required to remain on board until the ship is released from quarantine, or until arrangements can be made for removing them from such ship.

No passenger or other person on board a ship in quarantine will be allowed to leave the ship, for the purpose of being landed at the lazaretto, or other place that may be approved by the quarantine board, before payment has been made to the visiting officer of the amount payable, in accordance with the following scale, for the maintenance of such passenger during the period of detention in quarantine: for first class passengers, at the rate of 6s. per day; for second class passengers, at the rate of 8s. 6d. per day; for third class passengers, at the rate of 1s. 6d. per day. Children, according to class, charged

as follows: 8 years of age and under 12 years, half rates; 3 years of age and under 8 years, quarter rates; under 3 years of age, free.

Under the law every candidate for a pilot's license submits to a careful personal examination by the pilotage and harbor board of his district, and must satisfy them that he is a person of good character and of sober habits, and possessed of such nautical skill and complete local knowledge as qualify him to take charge of ships and steamers of the largest size and greatest draught of water that enter the port or ports in respect of which he applies. The license is renewable every year, if recommended by the pilot board. The following are the fees payable to pilots under the laws of 1879.

	Inward			Outw'd		
	£	s.	d.	£	s.	d.
Between beyond the prescribed distance and Kingston, not exceeding seven feet	2	5	0	1	8	0
For each additional foot and part of a foot	0	6	0	0	4	0
Between beyond the prescribed distance and Port Royal, not exceeding seven feet	1	7	0	0	17	0
For each additional foot and part of a foot	0	3	6	0	2	6
Between within the prescribed distance and Kingston or Port Royal, one-half of the above fees respectively...		–			–	
(The prescribed distance is between Cow Bay point to the east and Wreck reef to the south)		–			–	
Between Kingston and Port Royal, not exceeding seven feet	0	18	0	0	10	6
For each additional foot and part of a foot	0	2	6	0	1	6
Into or out of Old Harbor, Falmouth or Saint Ann's bay, not exceeding seven feet	2	5	0	1	8	0
For each additional foot and part of a foot	0	6	0	0	4	0
Into or out of any other port, not exceeding seven feet	1	10	6	1	5	0
For each additional foot or part of a foot	0	4	0	0	3	0

The following table gives the fees now payable to harbormasters under the law of 1873:

Harbors	Draft of water	Vessels trading between the tropics			All other vessels except coasti'g vessels			Coasting vessels		
		£	s.	d.	£	s.	d.	£	s.	d.
Kingston, Morant Bay, Port Morant, Manchioneal	Under 10 feet.	0	7	6	0	15	0		—	
	10 feet and over but under 12	0	10	0	1	0	0		—	
	12 feet and over but under 15	0	15	0	1	10	0		—	
	15 feet and over but under 20	0	17	6	1	15	0		—	
	20 feet and upwards	1	0	0	2	0	0		—	
All other harbors	Under 12 feet	0	5	0	0	10	0		—	
	12 feet and upwards	0	10	0	1	0	0		—	
Kingston harbor	Not exceeding per quarter...		—			—		0	8	6
All other harbors	Not exceeding per quarter...		—			—		0	1	0

Vessels anchoring at the entrance of Kingston harbor, off Port Royal, for the purpose of calling for orders only, and not discharging or taking in cargo, are not liable to harbor fees.

At Morant point, the lighthouse dues are 3 pence per ton; at Plumb point, 2 pence per ton for sailing vessels, and ⅔ for steamers, not oftener than once in three months. Vessels calling off the port for orders, or to land passengers, exempt. The schedule of charges for wharfage at the various public wharves in Jamaica, under the law of 1869, varies according to the nature of the package, from 3 pence to 15 shillings, this last being for 1,000 butt and pipe staves and heading; the legal rates are not always charged; at a number of the wharves especial arrangements are made and concessions granted.

Customs Duties, etc., of Jamaica.

Admeasurer's Fees.

These fees are levied under the 20th section of the merchant shipping act, 1873, part 2, agreeably to the table in schedule 3 of the same act, which is as follows:

For a ship under 50 tons reg. tonnage	£	1	0	0	For a ship from 1,200 to 2,000 tons reg. tonnage	£	6	0	0
Do from 50 to 100 reg ton		1	10	0	Do from 2,000 to 3,000 r. ton.				
Do from 100 to 200 "		2	0	0	Do from 3,000 to 4,000 "		7	0	0
Do from 200 to 500 "		3	6	0	Do from 4,000 to 5,000 "		9	0	0
Do from 500 to 800 "		4	0	0	Do from 5,000 and up.		10	0	0
Do from 800 to 1,200 "		5	0	0					

Warehouse Rates.

The charges for storing goods in the queen's warehouse are on a similar scale to those laid down in the wharfage law, 29 of 1869.

All goods, after having been stored for three months, are liable to a charge of one-fourth more for every three succeeding months or part thereof.

The sum of three pence for drayage is charged for every package delivered from the queen's warehouse, in addition to the charge for rent.

Packages or parcels belonging to the government, the army or the navy, sent to the queen's warehouse are free of all rent or charge for drayage.

Charges for storing gunpowder at forts or magazines, or some proper place of security approved by the governor, under law 18 of 1877, section 95:—2s. per brl. of 100 lbs. weight; 1s. per half brl.; 6 pence per qr. brl.

Charges for similarly storing arms, ammunition, and explosive substances other than gunpowder, under law 24 of 1885, section 37: Explosives—6d. per cubic foot for a space not exceeding 8 cubic feet and 3d. for each cubic foot in excess of 8 cubic feet; arms—6d. per package and 6d. per 112 lbs. loose arms.

Import Duties—Law 11 of 1867.

Ale, beer and porter, p gal.	£	0	0	6	Salmon, smoked, per lb.	£	0	0	2
Bacon, per pound		0	0	2	Salmon, wet or salted, per barrel of 200 lbs.		0	10	6
Barley (not pearl barley) per bushel		0	0	4	Flour, rye, per brl. of 196 lbs.		0	8	0
Beef, wet, salted or cured, per brl. of 200 lbs.		0	15	0	Do wheat, per brl, of 196 lbs		0	8	0
Do dry, salted or cured, per pound		0	0	1	Gunpowder, per pound		0	1	0
Beans, per bushel		0	0	4	Hams, per pound		0	0	2
Bread or biscuits, p 100 lbs.		0	6	0	Horses, mares and geldings, each		0	10	0
Butter, per pound		0	0	2	Indigo, per pound		0	0	3
Calavances, per bushel		0	0	4	Lard, per pound		0	0	0¾
Candles, composition, p lb.		0	0	2	Matches, lucifer and others, p gross of 12 doz. boxes, each box to contain 100 sticks, and boxes containing any greater or lesser quantity to be charged in proportion		0	5	0
Do tallow, per lb.		0	0	0¾					
Do wax, or spermacetti, per lb		0	0	2					
Cattle, neat, per head		0	10	0					
Cheese, per lb		0	0	2					
Cider and perry, per gallon		0	0	6	Meat, salted or cured, p barrel of 200 lbs.		0	15	0
Cocoa, per 100 lbs.		0	10	0	Meal, not wheat meal, per barrel of 196 lbs		0	2	0
Coffee, British colonial, per 100 lbs		1	0	0	Mules, each		0	10	0
Corn, Indian, per bushel		0	0	4	Oats per bushel		0	0	4
Fish, dried or salted, per 100 lbs.		0	3	6	Oil, per gallon		0	0	9
Do smoked, not otherwise enumerated or described per pound		0	0	0¾	Peas, (not being split peas), bushel		0	0	4
Alewives, pickled, per barrel of 200 lbs.		0	2	6	Pork, salted or cured, per barrel of 200 pounds.		0	15	0
Herrings, pickled, per barrel of 200 lbs.		0	2	6	Rice, per 100 pounds.		0	3	0
Herrings, smoked, per lb.		0	0	0¾	Do undressed, per bushel.		0	1	0
Mackerel, pickled, p barbarrel of 200 lbs.		0	4	6	Salt, per 100 pounds.		0	1	0
Do pickled, not otherwise enumerated or described, per barrel of 200 lbs.		0	4	6	Sausages, dry or pickled, per pound		0	0	2
					Soap, per 100 pounds		0	5	6
					Spirits, brandy, per gallon		0	10	0
					Gin, per gallon		0	10	0

Rum, the produce of and imported from British possessions, per gallon	£0 10 0
Whisky, per gallon	0 10 0
Spirits of wine, alcohol and all other spirits, cordials or spirituous compounds per gallon	0 10 0
Sugar, refined, per pound	0 0 2
Do unrefined, per 100 lbs	0 10 0
Tea, per pound	0 1 0
Tobacco, manufactured, including cavendish, p lb.	0 1 0
Do unmanufactured, p lb.	0 0 6
Cigars, per pound	0 5 0
Tongues, dried, per lb	0 0 2
Do salted or cured, per barrel of 200 pounds	0 15 0
Wheat, per bushel	0 0 9
Wines in bulk and in bottle, per gallon	0 2 6
Wood for every 1,000 feet of pitch pine lumber by superficial measurement of 1 inch thick	0 13 0
Wood, for every 1,000 feet of white pine lumber, or other lumber, by superficial measurement of 1 inch thick	£0 9 0
Shingles, cypress, more than 12 inches in length, per thousand	0 6 0
Shingles, Wallaba shingles, per thousand	0 6 0
Boston chips, and all shingles not otherwise enumerated or described, p thousand	0 4 0
On all goods, wares, merchandise and effects of every description not previously enumerated, for every £100 value	12 10 0
And after these rates for any greater or less quantity of such goods r'sp'tiv'ly.	

EXEMPTIONS.

Asses
Birds
Books, printed, including maps
Bricks (not Bath bricks)
Bullion
Carriages, carts and wagons, used for agricultural purposes
Coals
Coke
Coin
Cotton wool
Diamonds
Dogs
Dyewoods
Drawings, paintings, engravings, lithographs and photographs
Fish, fresh
Flax
Fruit, fresh
Goats
Guano and other manure
Hand machine for preparing fibre, or for spinning cotton or wool
Hay and straw
Hemp
Hides, raw
Hydraulic presses, printing presses
Ice
Iron, galvanized
Do for roofing doors and shutters and every kind of iron roofing, doors and shutters
Leeches
Malt dust
Marble, in slabs and blocks
Machines, horse power
Meat, fresh
Mess plate and furniture, band instruments for the use of the army and navy, on the certificate of the military or naval commanding officer
Mills, whether they be for grinding canes, paints, coffee, corn or grain of any kind, or for sawing boards, raising water, or such as are set in motion by steam, horse, wind, or water power, and all parts of said mills
Molasses
Oil cakes, whole or in powder, and other prepared food for cattle and animals
Patent fuel
Pans for boiling sugar, whether of copper or iron
Pipes for conveying fluids
Plants, growing
Ploughs, plough-harrows, harrows, cultivators, clod-crushers, horse-hoes, dibbles, sowing machines, also sewing-machines and parts thereof
Poultry
Pumps for raising water
Railway truck wheels
Resins and rosins
Salt, rock
Sarsaparilla (but not the extract of)
Sheep
Shooks, tierce, puncheon and hogshead, and all descriptions of shooks, also tierces, hogsheads and casks
Slates
Soda, ash or sub-soda
Specimens illustrative of natural history, mineralogy and geology
Stills or any part of a still
Steam engines or any part of a steam engine
Swine
Tallow, grease, tallow-grease, or grease and slush

Tiles, marble and earthen, as well as paving stones
Tortoise-shell
Tow
Turtle
Vegetables, fresh
Wax, bees'
Wood hoops
Wood staves and headings, red or white oak or ash
Wire, iron for fences, wire fencing, iron standards and also tomb railings

The following are also exempt from duty:

All packages containing goods subject to the *ad valorem* duty imposed by this law.

Provisions and stores imported for the use of her majesty's army and navy and consigned by bill of lading to the officer at the head of her majesty's commissariat, the military storekeeper, or the naval commanding officer of this island, on the production of the bills of lading and certificate of such officer that they have been solely imported for use of the army or navy as aforesaid.

Provisions, wines, spirits and malt liquors imported for the use of the naval staff and naval messes in this island, consigned by bills of lading to any naval officer or the president of a naval mess, on the production of the bills of lading and the certificate of the officer, such certificate being countersigned by the officer commanding the naval forces, that they have been solely imported for the use of such officer or naval mess, and on an undertaking that they shall not be sold in the island without special permission of the collector of customs, such permission to be given only on payment of the duty.

Provisions and stores imported by the local government for the volunteers, or for the public service, in the certificate of the revenue commissioner.

Articles of naval, military and civil uniform, for the personal use of the proprietor.

DRAWBACKS.

Goods, wares and merchandise, upon which *ad valorem* duty under this law, or any previous law of this island, shall have been paid, if duly exported within two years of their first importation, a drawback equal to the duty paid on first importation.

On the exportation of the following goods, on which the duty under this law, or any previous law shall have been paid, without such goods having been bonded, if exported within twelve months of the first importation, a drawback equal to the duty so paid:

Flour, bread or meal, not less than 10 barrels of each article
Lard or butter, not less than 10 firkins of each article
Candles, not less than 10 boxes
Soap, not less than 20 boxes
Ale, beer, or porter, not less than 5 hogsheads of each in bulk, nor less than 15 barrels of each, if in bottles
Beef, pork, or pickled fish, not less than 10 barrels of each
Rice, not less than 5 tierces, or 25 bags
Dried fish, not less than 1,000 pounds weight
Tongues, not less than 10 barrels
Lumber, not less than 5,000 feet
Shingles, not less than 5,000

On the exportation of bread or biscuit, manufactured in this island, the duty paid on the flour consumed in making the same, but not to exceed the duty imposed on bread or biscuit imported.

EXPORT DUTIES.

Under law 11 of 1867, transferred to general revenue by law 18 of 1879.

On coffee, per tierce (other packages in proportion of 7 cwt. to a tierce), 6s.

On logwood and other dyewoods, lignumvitæ, ebony, and cocus wood, per ton..... 1s.

On sugar, per hogshead..... 5s. 9d.

N. B.—3 tierces to 2 hogsheads; 8 barrels to 1 hogshead; other packages in proportion to a hogshead of 17 cwt.

On rum, per puncheon..... 4s. 6d.

N. B.—2 hogsheads to 1 puncheon; quarter-cask and other packages in proportion to a puncheon of 90 gallons.

Drawback of excise duty, according to the strength of the spirit, is allowed to the exporter when duty paid rum is exported, provided twenty-four hours' notice of intention to ship be given to the local collector of revenue, to enable him to make the necessary arrangements for testing the strength of the spirit, and for its shipment under customs supervision. See section 45 of law 10 of 1878, and regulations published in gazette of October 8th, 1885.

Drawback of excise duty paid on rum used in the manufacture of cordial is

also allowed at the rate of 1s. for each gallon cordial exported, on its being proved to the chief officer of customs, at the port of shipment, that the cordial is of island manufacture, and that such cordial contains not less than 20 per cent. of rum distilled in the island. See section 46, law 10 of 1878.

The Turk's and Caicos islands are dependencies of Jamaica; at the first named a pilot should be employed. The rates of pilotage vary from $3 for a vessel of 50 tons and under, to $4.50 for one above 50 tons, and not above 100 tons; for every additional 50 tons over 100, 50 cents; light dues, 8 cents per register ton. The tariff of duties on merchandise at Turk's island is very moderate, the highest rate being 8s. 4d. per 100 pounds of butter; 10s. per M. cigars; 9s. per M. feet of lumber; 8s. per 100 pounds of refined sugar; 8s. per 100 pounds of tobacco, other than cigars: wine, 1s. per gallon, and 10 per cent. *ad valorem*. The following articles pay 10 per cent. *ad valorem*: drugs and medicines; textile fabrics of all materials and descriptions; hats, bonnets, caps; hardware, and cutlery; leather in every form, manufactured or not; hulls and materials, boats inclusive, of vessels wrecked, derelict, stranded, or condemned, have to pay 15 per cent. *ad valorem*. The list of imports free from duty is considerable. There is likewise a royalty of 10 per cent. *ad valorem* on salt, and of 2 shillings per ton on cave earth.

The British islands of St. Kitts, or St. Christopher, Nevis, and Anguilla, belonging to the Leeward group, have the same schedule of customs dues.

At Basseterre, the port of St. Kitts, the following are the charges vessels are subjected to: if over 40 tons, 36 cents per ton every time of entry; under 40 tons, 36 cents per ton yearly; package duty, payable by vessels discharging or loading part cargo, in place of tonnage dues, 32 cents per average hhd, for articles in general; 32 cents per M. feet of lumber; 36 cents per M. staves; 36 cents per horse, mule, or cattle; 20 cents per 14 bushels of grain; 16 cents per M. wooden hoops; 4 cents per bundle of shooks. Export tonnage dues, payable by the ship: 2s. per hhd. of sugar; 1s. per half hhd.; 1s. 8d. per tierce; 1s. 6d. per puncheon of rum; 9d. per hhd. of rum; 1s. 6d. per puncheon of molasses; 9d. per hhd. of molasses; 4½d. per barrel of ditto; lighterage, 32 cents per load; water costs 36 cents per puncheon; and ballast 72 cents per ton. Custom house officer's fee, $4. The cargo outward is put alongside the ship free; the inward cargo is landed by her.

The tariff of imports for the three islands is as follows; only the highest rates being given:

		£	s.	d.
Candles, other than tallow	per 100 lbs		12	6
Tallow	do		6	3
Butter	do		8	4
Beef, pork, hams, and all salted and smoked meats	do		4	2
Meat cattle and asses	per head		4	2
Cedar posts	per 100		8	4
Cedar boards and square	per M ft		12	6
Cheese	per 100 lbs		8	4
Cigars	per £100 value	40	0	0
Cacao and coffee	per 100 lbs		5	0
Flour, wheat	per bbl		4	2
Hardwood, and other woods, not enumerated	per M ft	1	13	4
Horses	per head	1	0	0
Lumber, white and yellow pine, and spruce	per M ft		8	4
Do, pitch pine, other woods, and hickory	per 1,200 ft		12	6
Malt liquor	per hhd		8	4
Do	per bbl		5	7
Do	per dozen		0	6
Mules	per head		10	5
Raisins, prunes, currants, figs and citron	per 100 lbs		8	4
Staves	per M		8	4
Spirits, brandy	per gallon		4	0
Do rum	do		1	6
Do gin	do		2	0
Do other than above	do		3	0
Sugar, refined	per 100 lbs		5	4
Do muscovado or melado	do		5	0
Tobacco, manufactured	do		4	3
Wine	per £100 value	15	0	0
Wood hoops	per M		8	4

Many articles which are not enumerated in the tariff pay at the rate of £8 for every £100 value. The list of exempted commodities is very considerable.

Native staples pay an export duty as follows: sugar, per hhd, 4s 2d; rum, per puncheon, 2s 1d; molasses, per puncheon, 1s 0½d; potatoes, per bbl, 3d; arrowroot, or tous-les-mois, per 100 lbs, 6d; cotton, per 100 lbs, 1s; salt, 5 per cent. *ad valorem*.

The regulations of Carlisle bay, island of Barbadoes, prescribe that, upon the arrival of a vessel, she be visited at once by the harbor master, and after being admitted to pratique her master must report himself at the custom house, and produce a manifest setting forth a detailed account of every package on board.

The port charges of a vessel are as follows: if she merely touches the port for orders, or to try the market, she only pays $3; if she discharges or loads, then she is taxed 54 cents per ton, but only in the proportion of her tonnage occupied by cargo inward or outward; bond fee, $3; harbor master's pass, $3; the harbor police fee varies from $4 to $6, according to tonnage. Water is worth 60 cents per 100 gallons. Lighterage of general merchandise, $4 per 15 tons; breadstuffs, 2½ cents per barrel; coal, 35 cents per ton; shingles, 10 to 15 cents per M.; lumber, rafted alongside and brought to the quay, costs for hauling up 10 to 15 cents per M.; and laying off, 7½ cents per M. The wharfinger's charges for delivering lumber, 10 cents per M.; shingles, 2½ cents per M.; coal, 18 cents per ton; staves, 12½ cents per M. The lading charges are: per hhd. of sugar, 25 cents for lighterage, 20 cents for the stevedore; for tierces and barrels, less in proportion; on a puncheon of molasses, 16 cents for lighterage, 10 cents for the stevedore, and less in proportion for tierce and barrel. Cooperage on molasses, 28 cents, and hose hire 8 cents per puncheon. The custom is for the vessel to pay one-half the cooperage of molasses, the other half falling on the shippers. Common labor is usually $1 a day per man, and $1.50 a day per stevedore. This is when the men are engaged by the day.

Import Duties.

Levied under trade act, 1878, and amendment act, 1883.

	£	s.	d.
Arms and ammunition:			
Gunpowder (not blasting)....Cwt	0	11	2½
Fire arms....Each	0	10	0
Other kinds.... 4 p c *ad val*			
Arrowroot, tous-les-mois, and all other starches....100 lbs	0	1	0
Asses....Each	0	5	0
Bacon and hams....Cwt	0	5	7½
Beef, salted.... "	0	5	7½
Books, forms, and papers (printed or manuscript), maps, charts, school globes, engravings, music, and works of art....	Free		
Bottles, stoneware, empty....	"		
Bottles, empty....	"		
Other kinds.... 4 p c *ad val*			
Bran, pollard, oats....100 lbs	0	0	7½
Brass and copper:			
Composition, nails, bolts, bars, rods, spikes, and rivets....Cwt	0	4	8
Copper, sheets, rods, bars, bolts, spikes, nails, and rivets.... "	0	4	8
Yellow metal, in sheets.... "	0	4	8
Copper and brass, old.... "	0	2	8
Other kinds.... 4 p c *ad val*			
Bread—pilot and navy, and crackers....100 lbs	0	0	6
Bricks....1,000 lbs	0	3	0
Butter....100 lbs	0	7	6
Candles.... "	0	3	4
Cement....Barrel	0	1	3
Cheese....100 lbs	0	7	6
Chemicals:			
Alkali, all kinds.... 4 p c *ad val*			
Alum....	"		
Arsenic....	"		
Barytes....	"		
Bleaching materials, all kinds....	"		
Borax, refined....	"		
Brimstone....	"		
Copperas....	"		

		£ s. d.
Chemicals:		
Epsom salt	4 p c *ad val*	
Sal ammoniac	"	
Saltpetre	"	
Coal, and the mixed preparations thereof, and coke	Ton	0 2 6
Cacao	100 lbs	0 2 1
Coffee	"	0 2 6
Cordage (except twines)	"	0 1 6
Corn and grain, unground	"	0 0 6
Firearms	Each	0 10 0
Fire clay	4 p c *ad val*	
Fish, dried, salted, or smoked	112 lbs	0 0 2½
Fish, pickled	Barrel	0 0 5
Flour, wheat or rye	"	0 4 2
Gold and silverwares, all kinds	4 p c *ad val*	
Grease:		
Tallow	Cwt	0 2 8
Other	4 p c *ad val*	
Gunpowder, blasting	100 lbs	0 5 0
Gunpowder, the other kinds	"	0 10 0
Hides and skins, raw		Free
Other kinds	4 p c *ad val*	
Hops	"	
Horses:		
Foals—Horses belonging to equestrian companies and taken away with them, and race horses after the first importation, if drawback has not been claimed		Free
Other horses, under 13½ hands	Each	0 10 0
Other horses, of or above 13½ hands	"	2 0 0
Indian-meal or other kinds	Barrel	0 1 3
Iron and steel:		
Iron, hoops, bars, rods	Ton	0 7 5¼
Iron nails, spikes, rivets, and clinches	"	1 2 4¾
Rails, etc., for tombs, specially imported for erection, and not for sale; and old iron		Free
Lard	100 lbs	0 4 2
Lead:		
Old		Free
Sheet and pipe	Cwt	0 1 1¼
Other kinds	4 p c *ad val*	
Liquors:		
*Malt liquor, cider, and perry in wood, per cask, 64 gallons		0 15 0
*Malt liquor, cider, and perry, in bottles (quarts)	Dozen	0 1 0
*Spirit and cordials (except rum and gin, and perfumed spirits, to be used as perfumery only	Gal	0 6 0
*Gin, for every gallon below or equal to proof, by Syke's hydrom.		0 4 0
*Gin, for every higher degree of proof in proportion.		
*Rum, for every gallon below or equal to proof, by Syke's hydrometer		0 4 0
*Rum, for every higher degree of proof in proportion.		
*Wine, sparkling	Gallon	0 2 0
*Wine, all other kinds	"	0 0 2
Matches—Lucifer and other kinds, the gross of 12 dozen boxes, each box to contain 100 sticks		0 1 0
Matches—Boxes containing any greater or less quantity to be charged in proportion.		
Meat, salted or cured	100 lbs	0 5 0
Metals, new:		
Composition nails, bolts, bars, rods, spikes, and rivets	"	0 4 2
Copper in sheets, rods, bars, bolts, spikes, nails, and rivets	"	0 4 2
Iron hoops, bars, and rods	"	0 0 4
Iron nails, spikes, rivets, and clinches	"	0 1 0
Lead, sheet, and pipe	"	0 1 0
Yellow metal in sheets	"	0 4 2
Metals, old:		
Copper, brass, and pewter	"	0 2 0

*25 per cent. additional duty on these articles under act 20th March, 1884.
No allowance for under-proof spirit.

	£	s.	d.
Millstones and grindstones	4 p c *ad val*		
Mules of the value of £12 10s. and upwards cost	1	10	0
Mules under the value of £12 10s. cost	1	0	0
Oil, kerosene, Gallon	0	0	2½
Oilmeal and oilcake, 100 lbs	0	0	5
Pianos	4 p c *ad val*		
Pickles and sauces	"		
Pictures	Free		
Pitch	"		
Pork, salted, Cwt	0	5	7¾
Rice, 100 lbs	0	0	6
Roofing slates	4 p c *ad val*		
Rosin	Free		
Soap, 100 lbs	0	1	3
Starch, Cwt	0	1	1½
Straw plaiting for hats	4 p c *ad val*		
Sugar, refined, 100 lbs	0	10	0
Tallow, "	0	2	0
Tea, Pound	0	0	3
Tobacco:			
Cigars, cheroots, and cigarettes of all kinds, "	0	5	0
Snuff, "	0	1	6
Other manufactured, "	0	1	6
Other " if in outer packages of less than 80 pounds net weight each, Pound	0	2	0
Leaf, "	0	1	0
Leaf, if in outer packages of less than 50 lbs net weight each, lbs	0	1	6
Turpentine (oil and spirits of)	4 p c *ad val*		
Wood:			
Hemlock, birch, beech, white pine, pitch pine, and spruce 1,000 feet superficial measurement of one inch thickness	0	5	0
Hoops, whether coiled or straight, 1,200 pieces	0	6	0
All other kinds, except in naves, felloes, spokes, and unsquared posts, 100 cubic feet	0	8	4
Shingles, of all descriptions, 1,000	0	1	6
Staves, white and red oak, whether loose or made up in bundles or shooks, 1,200 pieces	0	6	0
Oxbows, Dozen	0	0	6
Truss hoops, Set of nine	0	1	3
All other articles not particularly enumerated, or particularly exempted, to pay 4 per cent. *ad valorem*.			

Exemptions from Duty.

All military stores and equipment for the troops stationed in the island; all articles for the use of the governor of the island, or by the local government for the police or for public institutions; all articles specially imported for the use or decoration of any place of worship, and not imported for sale, and all articles and things of every description imported by any naval officer on full pay in her majesty's service, for his use and accomodation. Military officers receive a fixed allowance from the colonial government in lieu of this privilege. Asphalt, blubber, and heads and offals of fish, bones and horns; books, forms and papers (whether printed or manuscript), maps, charts, school globes, engravings, music, pictures, statues and other works of art; bottles of glass or stoneware, empty; bullion, coin, and diamonds; calves, sucking and foals, cassaripe, cattle; cocoa-nuts; cotton wool; eggs; fresh fish and turtle, fresh fruit and vegetables, fresh meats; fuel—wood and charcoal; gravel, sand, soil, earth, and peat; green ginger, hay and straw; hoe sticks, horses brought into the island by equestrian companies, provided the same are taken away by them on leaving, and race horses on every occasion after the first importation thereof, provided no drawback had been claimed thereon on exportation. Hulls, boats, masts, spars, apparel, tackle and furniture of vessels condemned by survey, and on which tonnage duties shall have been paid; ice; leeches; lemon and lime juice; lime—building and temper—and limestone, live and dead stock, not enumerated. Logwood; manure; metals—old iron and old lead; molasses; oars and sweeps; packages in which goods are imported, except new trunks; vats, hogsheads, and puncheons; passenger's baggage containing apparel and articles of personal use, and professional apparatus, patterns and samples of no intrinsic value; personal effects of individuals be-

longing to this island dying abroad; pozzolano; rags; rawhides and skins; salt; sawdust; soda water and mineral water; specimens illustrative of natural history; seeds, bulbs, and roots and cuttings of plants or shrubs of all kinds; spars; sugar, raw or muscovado, sugar, crystallized vacuum pan; tablets and tombstones, and all the appurtenances thereto, imported specially for immediate erection, and not for sale, on certificate of the person for whom imported; tar, pitch, and resin; turtle and tortoise-shell unmanufactured.

Antigua, the chief of the Leeward confederacy, has established its own charges for vessels visiting its port, St. John's, and its tariff of imports. The port regulations are, with little difference, the same as in most ports.

The following is the schedule of charges vessels are subjected to at St. John's: Pilotage inward, from $4.80 for under 6 feet draught, to $8.64 for 10 feet, and for every additional foot $1.50; from over the bar into the harbor, after discharging a portion of the cargo, $6.72; outward, three-fourths of the inward rates to sea off the roadstead: from the roadstead to sea—seldom needed—$6.72. Distance money varies from $2.82 to $7.68 for vessels drawing above 11 feet; for those under that draught, half-distance money. Harbor fees: For vessels from 120 to 150 tons, $3.84; 150 to 200, $4.80; 200 to 250, $5.76; 250 to 300, $6.72; 300 and upward, $7.68. Tonnage dues: Vessels of 60 tons and upward pay 6 cents per ton every time of entry. Lighterage: The rates are moderate. Ballast: Sand, 60 cents per ton, and stone, 96 cents per ton. Labor, 60 to 75 cents per day. Water is worth 50 cents per puncheon.

Vessels landing a part of cargo pay, in lieu of tonnage dues, what is called package duty, which is moderate, the highest rates being $1 per M feet of hardwood, and 48 cents per every ton of coal in bulk.

The customs tariff of Antigua is as follows:

IMPORT DUTIES.

(Ordinance 19 of 1871 and 14 of 1885.)

		£	s.	d.
Ale, beer, perry, cider, and porter	Per doz quart bot	0	0	9
Do do do do	In bulk per tun	2	0	0
Asses	Per head	0	4	2
Beef and pork	Per lb	0	0	0½
Bread and biscuits	Per 100 lbs	0	2	0
Bricks and tiles of all descriptions	Per 1,000	0	4	2
Candles, tallow	Per lb	0	0	1
Do other than tallow		0	0	3
Cattle, horned (and 10 per cent. *ad valorem*)	Per head	0	4	2
Cigars	do	0	0	4
Coals	Per ton	0	2	1
Coffee and cacao	Per lb	0	0	1
Corn	Per bushel of 53 lbs	0	0	3
Fish, dried	Per quintal	0	1	0
Fish, pickled	Per barrel	0	2	0
Flour, wheat	do	0	5	0
Do rye	do	0	4	2
Fruit, dried and preserved	Per lb	0	0	2
Hams, bacon, tongues, lard, butter, cheese, and tallow	do	0	0	1
Horses, mares, geldings	Per head	1	10	0
Mules	do	1	0	0
Meal and other flour, not wheat	Per barrel	0	2	0
Meal, oil-cake or linseed	Per 100 lbs	0	0	10
Oil of all kinds	Per gallon	0	0	6
Kerosene and all other fluids for burning	do	0	0	3
Peas, beans, barley, oats, calavances, and all other grain	Per bushel	0	0	3
Potatoes, not being sweet potatoes	Per barrel	0	1	6
Rice	Per 100 lbs	0	2	0
Soap	Per lb	0	0	0½
Spirits, brandy	Per gallon	0	4	2
Do rum	Per proof gallon	0	2	6
Gin and all other spirits, not sweetened	Per gallon	0	3	0
Spirits, sweetened, and cordials and liqueurs	do	0	5	0

		£	s.	d.
Sugar, refined	Per lb	0	0	1
Tea	do	0	0	4
Tobacco	do	0	0	5
Wines, whether bottled or not, on every £100 value		25	0	0
Wood, pitch pine, for 1,000 feet superficial measure of an inch thick		0	8	4
White pine, for every 1,000 feet by superficial measure an inch thick		0	6	3
Spruce pine, do		0	6	3
Shingles, cypress and wallaba	Per 1,000	0	4	2
Shingles, cedar, pine, spruce, or other description	do	0	2	1
Wood hoops	do	0	5	0
Staves	do	0	6	3
Shooks, hogsheads, puncheons, or tierces, each single pack without heading		0	0	6
Do with heading		0	0	8

And after these rates for any greater or less quantity of such goods respectively. All non-enumerated articles, 6 per cent. *ad valorem*.

Packages, viz.: butts, hogsheads, puncheons, tierces, and trunks on their invoice, or in case of there being no invoice, assessed value.

EXEMPTIONS.

Personal baggage of passengers, bullion, coin, books not being foreign reprints of English copyrights, maps and charts, ice, fresh meat and fish not preserved, turtle, poultry, fruit (not being dried or preserved), green vegetables, sweet potatoes, yams, tanniers, carrots, turnips, onions, plants and shrubs, seeds of all kinds for planting, plant and machinery and all apparatus for the manufacture of sugar, rum, or other produce, manures of all kinds (natural and chemical) and all substances to be used for manuring purposes, also sheep, goats, and swine, and all things imported into the colony for the use of the governor, and building materials and supplies for the use of Her Majesty's army and navy, military clothing, accoutrements and appointments imported by the officers of her majesty's army and navy for their use.

By ordinance 8 of 1878, continued by ordinance 1885, an addition of 12½ per cent. is made to all the above duties.

The island of Dominica also maintains a schedule of duties on merchandise. The port charges of vessels are as follows: pilotage, 15 shillings to £3, according to the vessel's size; anchorage, 10d. per ton; ballast, 6d. per ton.

The customs tariff of Dominica is as follows:

		£	s.	d.
Ale, beer, porter, perry, and cider	Gallon	0	0	5
Asses	Head	0	5	0
Beef and pork	100 lbs	0	4	2
Bread and biscuits, not being fancy	Barrel	0	2	6
Bricks and tiles	1,000	0	8	4
Butter	100 lbs	0	8	4
Cattle, horned	Head	0	5	0
Candles, tallow	100 lbs	0	4	2
Do other than tallow	do	0	6	3
Cheese	do	0	8	4
Coals and patent fuel	Ton	0	4	2
Corn and grain, unground	Bushel	0	0	4
Corn meal and rye flour	Barrel	0	2	6
Fish, dried	Cwt	0	2	0
Do pickled salmon	do	0	4	0
Do mackerel	Barrel	0	3	0
Do alewives and herrings	do	0	2	0
Flour, wheaten	do	0	4	2
Hams, bacon, tongues, and sausages	100 lbs	0	8	4
Horses, mares, and geldings, 14 hands and upwards	Head	1	10	0
Do do do do under 14 hands	do	1	0	0
Lard	100 lbs	0	4	2
Mules	Head	0	12	6
Oil, olive	Gallon	0	0	3
Do kerosene	do	0	0	2
Do paint, lamp and machinery	do	0	0	4
Rice	100 lbs	0	2	1

	£	s.	d.
Salt, common, and not table.....Barrel	0	1	0
Shooks and empty packages for produce of this island.....£100 value	5	0	0
Soap, not perfumed.....Cwt	0	8	0
Sugar, refined.....100 lbs	0	6	8
Do Muscovado, usine, and vacuum pan..... do	0	4	2
Spirits, brandy.....Gallon	0	4	0
Do gin..... do	0	2	0
Do rum and other spirits, not herein specified..... do	0	3	0
Tea..... Lb	0	0	6
Tobacco, leaf.....100 lbs	2	1	8
Do manufactured, including cigars.....£100 value	20	0	0
Vermicelli and maccaroni.....100 lbs	0	4	2
Vinegar..... Gallon	0	0	3
Wines.....£100 value	20	0	0
Wood, pitch pine lumber.....1,000 ft	0	10	0
Do white pine lumber..... do	0	8	4
Do spruce pine lumber..... do	0	8	4
Do shingles, cypress and wallaba.....1,000	0	4	2
Do shingles, cedar, pine and spruce..... do	0	2	0
Do staves.....1,000 pieces	0	8	4
Do truss hoops.....Set	0	1	6
Do wood hoops.....1,200 pieces	0	6	0
Agricultural forks, hoes, cane-bills, cutlasses, shovels, spades..£100 val	5	0	0

All non-enumerated articles to be subjected to a duty of 10 per centum *ad valorem*.

EXEMPTIONS.

Personal baggage of passengers, furniture and bedding previously used; bullion, coin; printed books, not being foreign reprints of English copyrights, printed forms, maps, and charts, engravings and pictures; ice, fresh meat, and fish not preserved; turtle, poultry; leeches; fruit, not being dried, green vegetables, potatoes, onions, and all other bulbous vegetables, plants, shrubs, and seeds of all kinds for planting, cocoanuts; tablets, tombstones, and tomb-railings; casks and packages of every description, containing goods, wares or merchandise. All machinery and all apparatus for mill and steam engines, plows, and apparatus for the manufacture of sugar, rum, lime juice, or other produce and materials specially imported for the repairs of any such machinery; manures of all kinds, natural and chemical, and all substances to be used for manuring purposes; sucking foals and calves; organs and all other musical instruments, lamps, bells, and ornaments specially imported for any place of religious worship; building materials and supplies for the use of her majesty's army or navy.

The isle of Montserrat, another member of the Leeward group, also has a tariff of its own for the purpose of providing revenue, a copy of which is given in continuation.

	£	s.	d.
Ale, beer, perry, cider and porter...doz quart bots.	0	0	6
Do.....hogshead	0	12	0
Asses.....head	0	4	0
Beef and pork, salted and cured...barrel of 200 lbs.	0	8	0
Bread or biscuits.....barrel	0	2	6
Bricks and tiles of all kinds.....1000	0	8	4
Butter.....lb.	0	0	1
Cheese.....100 lbs.	0	8	4
Candles, tallow.....lb.	0	0	0¾
Do other than tallow.....lb.	0	0	1
Cattle, horned.....head	0	5	0
Cement, Portland.....bushel	0	0	8
Cigars.....lb.	0	0	10
Coals, exclusive of package.....ton	0	2	0
Coffee.....100 lbs.	0	10	0
Fish, dried or cured, "	0	1	0
Do pickled, bar. of 200 lbs.	0	2	0
Flour, wheaten, barrel of 196 lbs.....	0	2	0
Fruits, dried and preserved .....lb	0	0	1
Goats..... head	0	0	6
Hams, bacon, dried beef and tongues, whether pickled or dried, 100 lbs.	0	4	2
Horses, mares and geldings ..... head	0	10	0
Lard..... lb.	0	0	0½
Matches.....great gross	0	4	0
Mules.....head	0	10	0
Oils, except petroleum and its products.....gallon	0	0	4
Oil meal, oil cake, linseed meal and cotton cake, ...100 lbs.	0	1	0
Oats, maize and other grain of pulse.....bushel	0	0	4

	£	s.	d.
Peas, beans, barley and calavances.....bushel	0	0	6
Petroleum and its products .....gal	0	0	2
Rice.....100 lbs.	0	2	0
Salt.....bushel	0	0	1
Sheep and swine.....head	0	1	0
Soap.....lb.	0	0	0¼
Spirits, namely, brandy and whisky.....impl. gal.	0	4	0
Do *rum, gin (per proof) and other spirits, not sweetened.....impl. gal.	0	3	0
Do sweetened and all cordials and liquors..... .....impl. gal.	0	3	0
Sugar, refined.....lb.	0	0	1
Teas.....lb.	0	0	4
Tobacco leaf, unmanufactured.....lb.	0	0	6
Do manufactured.....lb.	0	0	10
Wines, whether bottled or not; for every £100 value	15	0	0
Wood, namely, pitch pine, 1,000 ft. by superficial measure, 1 inch thick	0	16	0
Do namely, white pine or other lumber, 1,000 feet by superficial measure, 1 inch thick.....	0	8	4
Do shingles, cedar or pine .....1,000 pcs.	0	2	0
Do shingles, cypress, (4 inches broad), wallaba and all other kinds..... .....1,000 pcs.	0	3	0
Do hoops.....1,200 pcs.	0	8	0
Do staves..... "	0	12	0
Do hardwood, 1,000 superficial feet.....	1	0	0
Articles not enumerated, and not comprised in the clause of exemption, on every £100 val.	7	10	0

The islands of St. Lucia, St. Vincent, Grenada, and Tobago, forming the group of the Windward islands, have each established charges on vessels arriving at their ports, and a tariff of imports on goods, for revenue.

In St. Lucia government charges are paid at Castries. The port charges of Kingstown, in St. Vincent are 44 cents per ton; pilotage, a three-masted vessel, $4, and a two-masted one, $2.50; harbor dues, the same as pilotage; lighterage, 3 cents per barrel, etc.; and ballast, 96 cents per ton. At St. George in the island of Grenada, the harbor dues are 1s. 6d. per ton register; a vessel of 140 tons will have to pay for all expenses about $190. At Tobago, a vessel of 180 tons will probably have an expenditure of $165 to $170. Hereinunder are inserted the tariffs of the four islands.

Tariff of St. Lucia.

	£	s.	d.
Ale, beer and porter in wood..... gal.	0	0	6
Do in bottles.....doz.	0	1	3
Arrowroot.....lb.	0	0	0½
Beans.....bushel	0	0	3
Biscuits and bread, fancy, ...100 lbs.	0	4	0
Do common.....barrel	0	2	0
Brandy, proof.....gal.	0	7	0
Bricks.....1,000	0	7	6
Butter.....lb.	0	0	2
Candles, tallow.....lb.	0	0	1
Do other kinds.....lb.	0	0	2
Cattle and cows, other than oxen.....Each	0	5	0
Cheese.....lb.	0	0	1
Cigars and snuff.....lb	0	3	0
Cigarettes.....lb.	0	1	6
Cacao.....lb.	0	0	1
Corn.....bushel	0	0	6
Corn meal.....barrel	0	2	0
Currants, figs and raisins .....lb.	0	0	1
Fish, salted and dried..cwt.	0	3	0
Do pickled salmon...cwt.	0	5	0
Do herrings, mackerel, shad and other pickled fish.....cwt.	0	2	6
Flour.....barrel	0	4	2
Gin, rum, whisky and other spirits (except brandy), proof.....gallon	0	6	0
Glue.....lb.	0	0	1
Gunpowder.....lb.	0	0	3
Hay.....100 lbs.	0	1	0
Hair.....lb.	0	0	2
Horses, mares and geldings.....Each	2	0	0
Indigo.....lb.	0	0	6
Lard.....lb.	0	0	1½
Lemonade, soda water and ginger ale.....doz.	0	0	9
Lime, building.....barrel	0	0	6
Meat, salted and cured, hams, tongues, & bacon .....lb.	0	0	2
Do other pork and beef..lb	0	0	1
Nails, of iron.....100 lbs.	0	2	0

*Since December, 1884, rum pays 2s. 6d. per gallon of 25 degrees proof strength, with 1 d. per gallon additional for every degree above proof, and 1d. off for every degree below.

	£	s.	d.
Nuts, almonds.....lb.	0	0	1
Do ground.....bushel	0	0	6
Oats and brans.....bushel	0	0	4
Oil cake and meal...100 lbs.	0	0	9
Do kerosene.....gal.	0	0	2½
Do lard, naphtha, olive, sperm, engine, linseed and other oils.....lb.	0	0	6
Peas.....bushel	0	0	4
Pepper.....lb.	0	0	2
Pine, pitch.....1,000	0	16	0
Do white and spruce "	0	10	0
Pitch, rosin and tar..barrel	0	2	6
Rice.....100 lbs.	0	2	0
Salt, common and table, ...barrel	0	0	9

	£	s.	d
Sheep.....Each	0	3	0
Shingles, pine.....1,000	0	3	0
Do cypress..... "	0	4	0
Do wallaba..... "	0	5	0
Soap.....100 lbs	0	2	6
Sugar, usine or Muscovado .....lb	0	0	1
Do refined.....lb	0	0	2
Tallow.....100 lbs	0	2	6
Tea.....lb	0	0	6
Tobacco.....lb	0	0	10
Turpentine, spirits.....gal	0	0	6
Vermicelli and maccaroni .....lb.	0	0	1
Vinegar.....gallon	0	0	3

Wines, cordials, liquors, arms and ammunition, clocks and watches, confectionery, furniture, hulks and materials of vessels, perfumery, fancy soap and powder, silver plate and plated ware, preserved meats, preserved fruits, jewelry, 20 per cent. *ad val.*

All other articles not enumerated above, 10 per cent. *ad val.*

Exemptions.

Bullion, coin and diamonds, fresh fish, fresh meat, fruit and vegetables, poultry, straw, ice, mules, oxen and asses, manure, wood hoops and truss hoops, staves and shooks, empty casks, mills, steam engines, stills, sugar pans, furnace bars, ploughs, sewing machines, grubbers and carts, vacuum pans, the apparatus for boiling cane juice called the "triple effet," or "double effet," animal charcoal, centrifugal machines, filters for containing animal charcoal, coals, temper lime, cane (shoots of), galvanized iron troughs or of wire-rope, rails and other articles required for the construction of tramways on estates, and all other articles imported exclusively for the production or manufacture of sugar, cacao or other produce of St. Lucia. Packages in which goods are imported, except new trunks, articles for the use of the officer administering the government for the time being, live stock intended for consumption, specimens of natural history, seeds, bulbs, and roots of flowering plants or shrubs, printed books, military clothing, supplies imported for the use of her majesty's army and navy, articles of clothing and appointments imported for the use of the militia, wines and other liquors for the use of the military and naval messes, and all articles imported for the public service. The government levies a small export duty on sugar, molasses, lime juice, manioc, essential oil, and cattle.

St. Vincent's Tariff.

	£	s.	d.
Bread.....barrel	0	1	0
Bricks, tiles and slates, ... 1,000	0	8	0
Butter.....lb.	0	0	1
Candles, tallow.....100 lbs	0	5	0
Do all other..... "	0	10	0
Cattle, horses.....head	2	0	0
Do mules..... "	1	10	0
Cheese.....lb	0	0	1
Coffee.....100 lbs	0	5	0
Cordage..... "	0	5	0
Corn and grain.....bushel	0	0	3
Fish, smoked, dried or salted.....100 lbs	0	1	0
Do pickled, barrel not exceeding 200 lbs.....	0	1	0
Flour, wheaten.....barrel	0	4	0
Do meal, not wheaten.....	0	2	0
Lard.....lb	0	0	0½
Malt liquors in wood....hhd	0	15	0
Do in bottles, dozen reputed quarts.....	0	1	0

	£	s.	d.
Matches, gross of boxes not exceeding 100 in each box.....	0	0	6
Meat, beef and pork, salted or cured.....barrel	0	12	6
Do preserved in tins.....lb	0	0	1½
Do dried or baked, say hams, bacon, dried beef, etc.....lb	0	0	1
Metals, copper or composition .....lb	0	0	1
Do iron, galvanized....."	0	0	0½
Do do not galvanized...."	0	0	0¼
Do lead..... "	0	0	1
Oil, kerosene.....gallon	0	0	1
Do all other..... "	0	0	6
Do meal or oil cake, puncheon not exceeding 750 lbs.....	0	6	3
Paints & paint stuffs, 100 lbs	0	2	6
Rice.....lb	0	0	0½
Salt, coarse.....barrel	0	0	3

	£	s.	d.
Salt, fine, sack of 4 bushels	0	0	6
Shingles, cedar and pine 1,000	0	2	0
Do all other kinds... "	0	4	0
Shooks and packs, bundle not exceeding 35 staves	0	0	6
Soap.....lb	0	0	0½
Spirits, brandy.....proof gal	0	6	0
Do other spirits.. "	0	5	0
Do liquors, cordials and bitters.....gallon	0	6	0
Staves and heading, 1,000 p	0	12	6
Sugar, Muscovado.....100 lbs	0	1	6
Do crystallized..... "	0	3	0
Sugar, refined.....100 lbs	0	4	0
Tallow, mill and cart grease .....lb	0	0	0½
Tea.....lb	0	0	6
Tobacco, unm'factured..."	0	0	6
Do cigars and cigarettes of all kinds.....lb	0	3	0
Do all other mfd....."	0	1	0
Turpentine, spirits of....gal	0	0	6
Wines.....£100 of value	25	0	0
Wood, spruce and white pine.....1,000 ft	0	6	3
Do all other kinds "	0	12	6
Do hoops..... "	0	6	3

All and every sort and description of goods, wares and merchandise not above enumerated and not exempted, 10 per cent. *ad valorem*.

EXEMPTIONS.

Asses, swine, goats, sheep, dogs, horned cattle, cacao, building lime; naval stores, viz: pitch, resin and crude turpentine; bullion, coin and diamonds; ice, fresh meats, fresh fruits, fresh vegetables and poultry; machinery intended to be worked by water, wind, steam, cattle or horse powers; stills and apparatus thereto belonging, and sugar taiches and clarifiers, manures, specimens, illustrative of natural history, seeds, bulbs and roots of flowering plants and shrubs; pictures, music, manuscripts, and printed books and papers (not including unused account books or printed forms or labels or paper hangings); baggage, apparel and professional apparatus of passengers; supplies imported for the use of her majesty's army and navy; all articles imported solely for building, repairs or use of in any church or other edifice set apart for Christian public worship; all imported by or for the officer administering the government of this colony for his own use.

Customs Tariff of Grenada.

	£	s.	d.
Bread.....100 lbs	0	2	0
Butter.....lb.	0	0	1
Candles, tallow.....100 lbs	0	5	0
Candles, wax, sperm, or composition.....100 lbs	0	10	0
Cacao..... "	0	10	0
Coffee.....lb	0	0	1
Fish, dried or preserved .....100 lbs	0	1	0
Fish, salmon, pickled or preserved.....lb	0	0	1
Fish, mackerel and other descriptions.....barrel	0	2	0
Flour, wheaten..... "	0	4	0
Flour, other kinds..... "	0	2	0
Grain, viz.:—Corn, oats, maize, beans and peas .....bushel	0	0	6
Barley.....100 lbs	0	0	6
Gunpowder.....lb	0	0	6
Lard.....lb	0	0	1
Livestock:			
Asses.....each	0	6	0
Cows, bulls, and oxen .....each	0	12	0
Calves..... "	0	6	0
Dogs..... "	0	10	0
Goats..... "	0	1	0
Horses..... "	1	5	0
Mules..... "	0	12	6
Sheep, swine and hogs .....each	0	2	0
Malt, cider and perry.....gal	0	0	6
Malt in bottles...doz quarts	0	1	0
Matches.....gross	0	2	0
Meal—corn, oil and oat .....100 lbs	0	2	0
Meat, dried or preserved .....100 lbs	0	5	0
Molasses.....gal	0	0	3
Oils, viz:—			
Olive, sperm, lard...gal	0	1	0
All other kinds..... "	0	0	9
Opium.....lb	0	10	0
Rice.....100 lbs	0	2	0
Soap..... "	0	2	0
Spirits.....proof gal	0	5	0
Sugar.....100 lbs	0	5	0
Sweetened spirits, bitters, liquors and cordials, ...liquid gal	0	5	0
Tallow.....100 lbs	0	4	0
Tea.....lb	0	0	6
Tobacco and snuff.....lb	0	1	0
Tobacco, long cigars.....lb	0	2	0
Tobacco, cigars and cigarettes.....lb	0	4	0
Wood..... .....1,000 feet superficial	0	10	0
Wood staves.....1,000	0	6	0
Wood shooks and packs .....bundle	0	0	6
Wood shingles.....1,000	0	3	0
Wines, viz:—			
All wines except sparkling wines.....gal	0	2	0
Do in bottles.....doz qts	0	4	0
Champagne, moselle, and other sparkling wines.....doz qts	0	8	0

Under ordinance No. 13, of 1884, dated November 26th, 1884, articles of any sort not above specifically mentioned, and not contained in the list of exemptions from duty given in ordinance No. 8, of 1881, shall pay a duty of £5 per cent. *ad valorem*.

The import tariff of Grenada was, on the 1st of January, 1887, altered by the increase of the *ad valorem* duties, from 5 to 10 per cent. The articles principally affected by this alteration are silks, cottons, woollens, ironmongery, earthenware and glasswares, leather and jewelry. Other changes in the customs duties on imports into Grenada are in contemplation.

TABLE OF EXEMPTIONS.

Under ordinances No. 8, dated July 25th, 1881, and 11, of 1882.

Coal, coin, bullion, diamonds; fresh fruit and vegetables; manures; straw; ice; fresh fish; printed books and papers; plants of all kinds; works of art not imported for sale; tombstones; old furniture, being personal effects of passengers arriving; any articles for the use of her majesty's service, or for the use of the government of Grenada, and any articles imported for the use of the governor.

The tariff of Tobago is as follows, with 20 p. c. additional from October, 1885; The original ordinance, 1881:

	£	s.	d.
Almonds, currants, raisins and other dried fruit ....100 lbs	0	15	0
Beef and pork, salted or cured, barrel not exceeding 200 lbs.....	0	9	0
Bread and biscuits....barrel	0	2	0
Butter.....lb	0	0	2
Candles, tallow.....lb	0	0	1
Candles, all other kinds..lb	0	0	2
Coffee and cacao.....lb	0	0	1½
Fish, dried, salted or smoked.....quintal	0	1	3
Fish, pickled (except salmon).....barrel	0	2	6
Fish, salmon, pickled or cured.....lb	0	0	1
Flour, wheaten, barrel, not exceeding 196 lbs.....	0	5	0
Flour, all other kinds....bbl	0	2	0
Grain, viz: — corn, oats, maize, beans and peas .....bushel	0	0	5
Hams, bacon, dried beef, dried or pickled tongues and sausages.....lb	0	0	2
Lard.....lb	0	0	1
Live-stock:—			
Horses, mares, geldings .....each	1	10	0
Mules..... "	1	0	0
Asses..... "	0	5	0
Bulls, cows, oxen "	0	15	0
Sheep..... "	0	3	0
Goats and swine... "	0	2	6
Dogs..... "	0	5	0
Lime, building.....bushel	0	0	1
Malt liquors, cider and perry.....hogshead	1	0	0
Malt liquors, cider and perry, in bottle per doz reputed quart bottles...	0	1	0
Matches, friction, in boxes not exceeding 100 matches in each..... .....gross boxes	0	2	6
Oils, olive, sperm, lard, and spirits of turpentine.....gallon	0	1	0
Oils, all other kinds "	0	0	6
Rice.....100 lbs	0	2	0
Salt.....bushel	0	0	2
Shingles.....1,000	0	3	0
Shooks, hogshead or puncheon, bbl. not exceeding 35 staves. .....each	0	0	6
Soap.....100 lbs	0	1	6
Spirits.....proof gallon	0	7	0
Spirits, sweetened, bitters, cordials, falernum and liquors..... .....gallon	0	8	0
Staves.....1,000	0	12	0
Sugar.....lb	0	0	1
Tea.....lb	0	0	6
Tobacco, manufactured..lb	0	0	7
Tobacco, manufactured (except cigars).....lb	0	1	0
Tobacco, cigars and cigarettes.....£100 value	25	0	0
Wines, in wood.....gallon	0	2	0
Wines, in bottle, except sparkling wines, dozen reputed quart bottles...	0	4	0
Wines, champagne, and other sparkling wines, doz reputed qt bottles..	0	8	0
Woods, mahogany, cedar, and other hard woods, 1,000 superficial feet, 1 inch thick.....	0	16	0
Woods, pitch and white pine, and other kinds, 1,000 superficial feet, 1 inch thick.....	0	12	0
Woods, Bermuda cedar posts.....each	0	1	6
Wood hoops.....1,000	0	6	0
Wood hoops, truss.....set	0	3	0
Packages, such as hogsheads, puncheons, trunks, canisters, trummels.....£100 value	7	10	0
All and every description and sort of goods, wares and merchandise not above enumerated.....£100 value	7	10	0

EXEMPTIONS.

Bullion, coin and diamonds; ice, fresh fish, fruit, vegetables and meats; manures; printed books and papers (not including unused account books or printed forms, or labels, or paper-hangings); plants of all kinds; passengers' baggage, apparel, and professional apparatus; tombstones; all articles for the use of her majesty's service, or for the governor or government of Tobago.

The island of Trinidad, situated at the mouth of the gulf of Paria, near the coast of Venezuela, belongs to Great Britian. Like the other colonies it has an especial schedule of charges on vessels, and of customs duties on imports.

No harbor, light, tonnage, or wharfage dues are levied at any of the island's ports; tonnage dues were abolished in 1877. Pilotage is rated according to the vessel's size; one of 200 tons will be charged about $40: health fees, $5; register stamps, $1. The private charges are: for discharging and loading, according to the nature of the cargo; sugar, per hhd., 65 to 75 cents; stevedore, per hhd., 24 cents; stone ballast is worth $1.20 to $1.80 per ton, and sand ballast, 40 to 50 cents per ton. The legitimate expenses of a vessel of 280 tons loading at Port Spain will range between $700 and $710, including the lighterage of the cargo.

Tariff for Trinidad.

	£ s. d.
YARNS AND THREAD.	
Cotton, all kinds	4 pc *ad v*
Linen, hempen, and jute, all kinds	do
Silk, all kinds	do
Woollen and worsted, all kinds	do
WOVEN MANUFACTURES.	
Cotton:	
Tissues of all kinds, including apparel and haberdashery	4 pc *ad v*
Linen, hempen and jute:	
Tissues—including apparel and haberdashery	4 pc *ad v*
Silk:	
Tissues, including apparel and haberdashery	do
Woollen and worsted:	
Tissues—including apparel and haberdashery	do
METALS — WROUGHT AND UNWROUGHT.	
Iron and steel, unwrought and wrought, including agricultural implements, hardware, cutlery and ironmongery	4 pc *ad v*
Machinery for manufacture of produce	Free
Other	4 pc *ad v*
Arms and ammunition:	
Muskets, guns, pistols, fowling-pieces, gun-barrels, and gun-stocks, each	0 5 0
Cartridges	4 pc *ad v*
Gunpowder	lb 0 0 7
Other kinds, raw and wrought	4 pc *ad v*
Brass and copper:	
Machinery, etc., for manufacture of produce and parts thereof	Free
Other kinds	4 pc *ad v*
Lead, all kinds	do
Tin and tinware	do
Zinc, all kinds	do
Gold and silver wares, all kinds	do
HIDES, SKINS AND LEATHER, UNWROUGHT AND WROUGHT.	
Leather manufactures, boots, shoes, slippers and leggings of all kinds, harness and saddlery	4 pc *ad v*
INDIA-RUBBER AND GUTTA-PERCHA, UNWROUGHT AND WROUGHT.	
Waterproof articles (textile and wearing apparel)	4 pc *ad v*
Other kinds	Free
EARTHENWARE AND PORCELAIN.	
All kinds	Free
Glass and glasswrs., all kinds	do
CHEMICALS, PRODUCTS, SALT, AND PERFUMERY.	
Alkali, all kinds	Free
Alum	do
Arsenic	do
Bleaching mat., all kinds	do
Borax, refined	do
Brimstone	do
Copperas	do
Epsom salts	do
Sal ammoniac	do
Saltpetre	do
Salt	do
Perfumery:	
Perfumed spirits	Gal 0 8 0
Other perfumery	Free
PAPER, STATIONERY, AND BOOKS.	
All kinds	Free
OILS, MINERALS, ETC.	
Seed oils:	
Cocoanut	Gal 0 0 6

	£ s. d.
Seed oils:	
Other kinds.....do	0 1 0
Oil meal.....Cwt	0 1 1½
Do cake.....	Free
Grease.....	do
Candles.....	do
Soap.....Cwt	0 1 8¼
Petroleum and rock oils..Gal	0 1 0
Turptn. (oil and spirits)...Gal	0 1 0
Rosin.....	Free
Pitch.....	do
Coal, cinders and patent fuel	do
Cement.....	do
Fire clay.....	do
Millstones and grindstones:	
Machn'y for manf. of prod.	do
Other kinds.....4 pc *ad v*	
Roofing slates.....	Free
Articles of Food.	
Bacon and hams.....	do
Butter.....Cwt	0 9 4
Cheese.....Cwt	0 9 4
Beef, salted.....	Free
Pork, salted.....	do
Cacao, prep., and chocolate..	do
Confectionery.....	do
Fish.....	do
Hops.....	do
Sugar.....Cwt	0 11 2¾
Pickles and sauces.....	Free
Spirits:	
Rum.....Proof gal	0 6 0
Methylated spirits.....Gal	0 1 6
Other kinds.....Gal	0 8 0
Beer and ale:	
In casks.....Gal	0 0 4

	£ s. d.
Beer and ale:	
In bottles.....Gal	0 0 4¼
Vinegar.....	Free
Miscellaneous Articles.	
Carriages on springs, four-wheeled.....Each	7 0 0
Do do two-wheeled.....Each	4 0 0
Other kinds.....	Free
Clocks and watches.....4 pc *ad v*	
Cordage and twine:	
Cord, ferretings.....	do
Other.....	Free
Hats, beaver, silk, and felt...4 pc *ad v*	
Asses, bulls, cows, horses, oxen, mares, geldings, colts, foals, and mules.....	Free
Household furniture:	
Hardwares.....4 pc *ad v*	
Other.....	Free
Indigo.....	do
Lucifer and wax matches:	
Boxes or packages of not more than 120 matches, and in proportion above that No.....Gross	0 2 6
Pianos.....	Free
Pictures.....	do
Starch.....	do
Straw plaiting for hats.....	do
Tobacco:	
Unmanufactured.....Lb	0 9 0
Manufactured.....Lb	0 1 0
Cigars and cigarettes.....Lb	0 2 0
Toys.....	Free
Umbrellas and parasols.....4 pc *ad v*	

Exemptions.

Goods of all kinds imported or taken out of bond for the use of the governor or of her majesty's land or sea forces.

Drawbacks on Re-exportation.

On bread, flour, rice, malt liquors, wines in casks, spirits in bottles, refined sugar, meal, etc., corn, etc., butter, ghee, lard, and matches in original packages, unbroken, the full amount of duty.

On gunpowder, 6d. per lb.; and on petroleum oil, 10d. per gallon, in original packages, unbroken.

Goods Absolutely Prohibited to be Imported.

Coin—viz.: base or counterfeit coin of any country.

Coin—silver of the realm or any money purporting to be such, not being of the established standard in weight or fineness.

Indecent or obscene prints, paintings, books, cards, lithographic or other engravings, or any other indecent or obscene articles.

Cacao, except cacao the product of, and imported from, Venezuela.

Infected sheep, cattle, or other animals.

Goods Prohibited to be Imported Except in Transit, and Subject to such Regulations and Restrictions as the Governor may Direct, and Duly Reported as Goods in Transit Accordingly.

Articles not the manufacture of the United Kingdom, and any packages of such articles bearing any names, brands, or marks, being or purporting to be the names, brands, or marks of manufacturers resident in the United Kingdom.

Clocks and watches, not the manufacture of the United Kingdom, of any metal impressed with the mark or stamp appearing to be or to represent any legal British assay-mark or assay-stamp, or purporting by any mark or appearance to be the manufacture of the United Kingdom.

Parts of articles, viz.: any distinct or separate part of any article not accompanied by the other part or all the other parts of such articles, so as to be complete and perfect, if such articles be subject to duty.

GOODS PROHIBITED TO BE IMPORTED EXCEPT SUBJECT TO THE RESTRICTIONS OF IMPORTATION.

Spirits, not being perfumed or medicinal spirits, unless in ships of thirty tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or contents of twenty gallons at the least, and duly reported, or in cases of not less than twelve glass or stone bottles, capable of containing together not less than one gallon and a half in the whole, demijohns capable of containing each not less than two gallons, and being really part of the cargo of the importing ship and duly reported.

Rum, except in casks of at least eighty gallons, or in demijohns of at least two gallons, or in cases each containing twelve bottles, containing in the whole not less than one gallon and a half.

Tobacco, except in packages of not less than fifty pounds net weight, and in ships of not less than ten tons burden.

Cigars, cigarrillos, or cigarettos, except in packages each containing not less than twenty pounds of net weight, and in ships of not less than ten tons burden.

Gunja, bhang, cannabis indica, or any preparation or mixture thereof, except under the license of the governor.

The importation of arms, ammunition, gunpowder, or any other goods may be prohibited by the proclamation of the governor.

In the British portion of the island of St. Martin, the following dues are collected from vessels, namely: from one of 100 tons, 8 cents per ton; harbor master's fees, $2.60; wharfage, $1.00; light dues, 1 1-5 cent per ton; certificate of measurement, $2; from one of 100 to 150 tons, 10 cents per ton; harbor master's fee, $3.60; wharfage, $1.60; light dues, 1 1-5 cents per ton; certificate of measurement, $2, from vessels of over 150 tons, the same as the preceding, except the wharfage, which is $2.

I give in continuation the port charges, and customs tariff of the British portion of Guiana in South America:

The charges at New Amsterdam are as follows. Pilotage: a sloop pilot-boat cruises outside the bar day and night, showing a white flag at her mast-head, with "pilot" in large letters inscribed on it: the rate varies from $12 for vessels under 8 feet draught; $15 for those between 8 and 9 feet; $22 for those between 9 and 10 feet; $30 for those between 10 and 11 feet; $44 for those between 12 and 13 feet; $58 for such as draw between 13 and 14 feet; and $66 for those upward of 13 feet draught. Tonnage dues, 15 cents per ton. Customs fees, $14.33 per vessel. Private charges: commission for loading ships, 5 per cent.; brokerage, $50; on money advanced, 5 per cent.; on sales, 10 per cent., including quarantine.

At Georgetown, pilotage is compulsory, varying from $12 for a vessel of 12 feet draught or under, gradually increasing till it reaches $62 for one of 19 feet or under, and $72 for one of 20 feet or under; vessels arriving to try the market without making an entry, are exempt from pilotage unless they employ a pilot. Vessels shifted in the river pay $3. Towage is rated according to the vessel's tonnage; a vessel of 200 tons pays $30; one of 1,000 tons, $180. Tonnage dues: vessels of 70 tons and upward, 15 cents per ton; under 70 tons, 5 cents per ton. The other government charges are about $20. Private charges: stevedores, 20 cents per hhd., 16 cents per tierce, and 8 cents per barrel of sugar; 16 cents per puncheon, 12 cents per hhd., and 8 cents per barrel of taffia; a Demerara sugar hogshead weighs 21 to 22 cwt.; lighterage, $3.25 for a load equivalent to 100 barrels: sand ballast costs $1 to $1.25 per ton.

Import Tariff of British Guiana.

YARNS AND THREADS.	£ s. d
Cotton, all kinds	7 p c *ad val*
Linen, hempen and jute, all kinds	"
Silk, all kinds	"
Woollen and worsted	"
WOVEN MANUFACTURES.	
Cotton tissues	"

	£ s. d.
Linen, hempen and jute tissues	7 p c *ad val*
Silk tissues	"
Woolen and worsted tissues	"
METALS—UNWROUGHT AND WROUGHT.	
Iron and steel:	
Fire engines, and locomotive engines, and railway plant	Free
Machinery:	
For mining, preparation and manufacture of produce or manures	do
And implements for water-works, tanks, lamp-posts, etc.; articles for construction of gas-works; locomotive engines, railway plant, locks and sluices	do
For steam-boats, saw mills, foundries, tile and brick making and electric lighting	Free
Steam boilers, steam boiler plates and tubes	"
Pans, teaches, tanks, etc., for manufacture of sugar, etc	"
Grating bars, iron bridges, and iron cane-punts	"
Fire engines, sewing machines and printing presses	"
Steam ploughs, diggers and dredgers	"
Telegraph materials	"
Iron hoops, Ton	0 8 4
Buckets and pails, Dozen	0 1 0½
Other kinds of iron and steel, unwrought and wrought	10 p c *ad val*
Arms and ammunition:	
Gunpowder, lb	0 0 10
Muskets, guns and fowling pieces, each	0 8 4
Percussion caps, 100	0 0 2
Pistols and revolvers, each	2 1 8
Shot, cwt	0 0 4
Brass and copper:	
Fire engines	Free
Pans, teaches, tanks for manufacture of sugar and storage of water	"
Telegraph and electric lighting materials	"
Other kinds	7 p c *ad val*
Lead:	
Printing type and material, and pipes for gasworks	Free
Shot, cwt	0 9 4
Other kinds	7 p c *ad val*
Tin, all kinds	"
Zinc, all kinds	"
Gold and silver wares, all kinds	"
HIDES, SKINS AND LEATHER—UNWROUGHT AND WROUGHT.	
All kinds	"
INDIA-RUBBER AND GUTTA-PERCHA—UNWROUGHT AND WROUGHT.	
Electric lighting and telegraphic apparatus	Free
Other kinds	7 p c *ad val*
EARTHENWARE AND PORCELAIN.	
Earth closets	Free
Drain pipes imported by mayor and town council, Georgetown, or board of superintendence, New Amsterdam, electric lighting and telegraphic apparatus	"
Bricks, 1,000	0 1 8
Other kinds	7 p c *ad val*
GLASS AND GLASSWARES.	
Electric lighting and telegraphic apparatus	Free
Other kinds	7 p c *ad val*
CHEMICALS, PRODUCTS, SALT AND PERFUMERY.	
Alkali, all kinds	"
Alum	"
Arsenic	"
Barytes	"
Bleaching materials:	
Lime	Free
Other	7 p c *ad val*

		£ s. d.
Borax, refined		7 p c *ad val*
Brimstone		"
Copperas		"
Epsom salts		"
Sal ammoniac		"
Saltpetre		"
Salt		Free
Perfumery:		
Perfumed spirits, viz: Cologne and Florida water, bay rum and water	gallon	0 4 2
Other perfumery		7 p c *ad val*
PAPER, STATIONERY AND BOOKS.		
Printed books		Free
Printing materials for newspapers and printing establishments, for trade use only		"
Other kinds		7 p c *ad val*
OILS, MINERALS, ETC.		
Seed oils, all kinds	gallon	0 0 10
Oil cake:		
Manure		Free
Other		7 p c *ad val*
Grease		"
Candles, tallow	cwt	0 4 8
Do other	"	1 3 4
Soap, common	"	0 2 4
Do perfumed		7 p c *ad val*
Petroleum and rock oils:		
Oils giving off vapor, under 73 degrees Fahrenheit	gallon	0 12 6
All other	"	0 0 10
Turpentine, crude	"	0 2 1
Do spirits of	"	0 0 9
Rosin	barrel	0 2 9
Tar and pitch	"	0 2 1
Coal, cinders and patent fuel:		
Coal (including the package)	hogshead	0 1 4
Do loose	ton	0 2 0
Do other		7 p c *ad val*
Cement:		
Lime and plaster of paris		Free
Other		7 p c *ad val*
Fire clay		"
Millstones		Free
Grindstones		7 p c *ad val*
Roofing slates	1,000	0 4 2
ARTICLES OF FOOD.		
Bacon and hams	Cwt	0 9 4
Butter	"	0 9 4
Cheese	"	0 9 4
Beef, pickled		Free
Pork, pickled		"
Cocoa (prepared) and chocolate	Cwt	0 18 8
Confectionery	"	1 8 4
Fish:		
Pickled salmon	barrel, 200 lbs	0 8 4
Pickled mackerel	"	0 4 2
Pickled other kinds	"	0 1 0½
Dried	Cwt	0 2 1
Smoked	"	0 2 4
Hops		7 p c *ad val*
Sugar, molasses		Free
Sugar, other kinds	Cwt	0 18 8
Pickles and sauces		7 p c *ad val*
Spirits:		
Spirits or strong waters, all sorts, not sweetened	proof gallon	*0 10 5
Spirits, sweetened, liquors, bitters, and other cordials	"	0 10 5

	£ s d.
Spirits, perfumed, viz.: Cologne and Florida water, bay rum and bay water....gallon	0 4 2
Beer and ale:	
In casks.... "	0 0 4¾
In bottles.... "	0 0 6
Vinegar....	4 p c *ad val*
Miscellaneous Articles.	
Carriages....	7 p c *ad val*
Clocks and watches....	"
Cordage, including gasketing....Cwt	0 4 2
Hats, beaver, silk and felt....	7 p c *ad val*
Horses:	
Stallions, under 14½ hands....each	20 16 8
All other.... "	1 9 2
Household furniture....	7 p c *ad val*
Indigo....	"
Lucifer and wax matches:	
Matches, in packages of not less than 10 gross of boxes, containing 100 matches each....each	0 1 8
Matches, in packages of less than 10 gross of boxes, containing 100 matches each....each	0 3 4
Match splints, containing equal to 10 gross of matches of ordinary length....case	0 15 7½
Pianos....	7 p c *ad val*
Pictures....	"
Starch....	"
Straw plaiting for hats....	"
Tobacco:	
In leaf, in packages of not less than a hogshead of 800 lbs....lb	0 1 8
In leaf, in packages of less than a hogshead of 800 lbs....lb	0 1 10½
Manufactured....lb	0 1 10½
Cigars and cigarettes....lb	0 5 0
Snuff....lb	0 3 1½
Toys....	7 p c *ad val*
Umbrellas and parasols....	"

The French islands of Guadeloupe and Martinique have especial import tariffs, and also especial harbor dues. It is expected that Pointe-a-Pitre in Guadeloupe will be made a free port, and it is understood that extensive harbor works, dry-docks, canals, etc., are contemplated. The harbor of Pointe-a-Pitre is constantly visited by steamers of the largest class. The tariff of Martinique is subject to yearly revision by the council-general, or legislative assembly.

The port charges at Guadeloupe are: pilotage, wharfage, interpreter, and health dues range from $6.04 for a vessel under 80 tons to $47.50 for one of 150 to 200 tons, $65.36 for one of 250 to 300 tons, $77.20 for one from 300 to 350 tons, and $87.11 for those over 350 tons; lighthouse and buoys, 15 francs; tonnage, lights, and buoy dues, when laden, inward, 53 fr. per ton, and ballast laden, outward, 25 fr.; fish laden, one-fourth capacity, free; temporary anchorage; $2.25; vessels under 80 tons not requiring a pilot's services are exempt from pilotage dues; water tax, $5.50; permit, $1.02; pass, $1.37; lighterage, load of 200 barrels, $7.40; hhd. of sugar, 22 cents per ton; towage, by steam, per ton, 9 cents, and by boat, each, $3.70; labor per day, 93 cents; ballast, stone, 73, sand, 55 cents per ton; interpreter's fees vary from 93 cents for a vessel under 60 tons, to $19.44 for one from 300 to 350 tons, and $25 for one of 350 tons and upward; consul's fees are to be added to the above, and 50 per cent. more for the ports of Basse Terre and Marie Galante. At Port Gustaf, in the island of St. Bartholomew, a dependency of Guadeloupe, the fees payable by a vessel of 200 tons do not exceed $5. In the island of Martinique the port charges are as follows: tonnage dues were abolished at all the ports of the island, save Fort de France; at this place they are, on some merchandise, 1 franc, 50 centimes per ton; on others, 2 francs 50 centimes; and again on others only 1 franc per ton. Pilotage ranges from 12 francs for a vessel of 80 tons or less to 158 francs for

one of 351 tons and above. Light dues, 20 francs per vessel. Bill of health, 6 francs a vessel of 100 tons or less, to 15 francs for one of 251 tons and over. Buoy tax, 5 francs per vessel. Water tax, 10 centimes per ton. Interpreter's fees vary from 10 francs for a vessel of 20 tons and less to 100 francs for one of 701 tons and over. General charges: pass paper and stamps, 6 francs, 80 centimes, and permit, 5 francs; ballast of stone per ton, 3 francs; lighterage, according to the class of merchandise. Landing rates: general cargo per ton, 1 franc, 75 centimes; iron, 4 francs; coal, 4 francs; loading rates: sugar per hhd., 1 franc, 20 centimes; per barrel, 35 centimes; in bags, per 1,000 kilos, 2 francs, 50 centimes; rum, per cask of 240 litres, 75 centimes. Vessels visiting a port merely to try the market are permitted to come in and tarry 3 days, paying only 12 francs, 35 centimes, pilotage included. From January 1st, 1878, 10 per cent. was added to the above dues. The disbursements of a ship of 420 tons at Port Royal, or Fort de France, Martinique, loading would probably amount to $180. The port charges at Cayenne, in French Guiana, are as follows: pilotage, when a vessel is brought straight to her berth, 10 francs; changing berth, 6 francs; daily sojourn of pilot on board if required, 6 francs; removal of vessel from Cayenne to Macorona and return, 80 francs. Port charges: on entry, vary from 30 francs for a vessel of 50 tons to 90 francs for one above 399 tons; above 400, for every 100 tons, 15 francs. Lighthouse dues, 20 centimes per ton. Sanitary dues are not high. Wharfage, 12 francs per day for a vessel of over 100 tons when at work only. Water dues, from 20 francs for a vessel of 100 to 200 tons to 40 francs for one above 300 tons.

The Danish island of St. Thomas was from 1850 to 1873 a place of much commercial importance, as an entrepôt to supply other islands, and the coast of South America. But trade being now done direct between the continents of Europe and America, and the countries which were formerly supplied from St. Thomas, the prosperity of the island has departed. Banks and merchants in St. Thomas lend money, on respondentia or bottomry bonds, on vessels and cargoes bound to any port on the continent of Europe or the United States; but it is nearly impossible to induce them to advance on vessels or cargoes destined to the United Kingdom.

St. Croix, another Danish West India island, has its own schedule of port charges, and of customs duties on imports.

The rules at the ports of both islands are about the same as those in force at other places, being intended for the preservation of good health and order. The following will probably be the disbursements of an American vessel of 400 tons, arriving from the United States with a cargo of coal: official charges, $143.15; other charges, $190. The expenses of a vessel of 275 tons, which called at St. Thomas in ballast, and obtained a charter to load at a port in Cuba were: official charges, $54.55; other charges, $258. A vessel of 200 English tons register is considered as of 375 tons measurement of 40 cubic feet, or 300 tons dead weight of 2,240 pounds to the ton, according to the class of cargo landed or shipped; a fraction of 0.26 is considered 1 ton for vessels of more than 20 tons; if the burden does not exceed 20 tons, 0.33 is considered 1 ton or 1 last. The private charges vessels are liable to pay at St. Thomas are: commissions on sale of damaged cargo, 1¼ per cent.; on ditto of hull and materials, 1¼ per cent.; to the auction sale, 11 per cent. additional is computed for calculation of duties, payable by vessels bound to the United States or the United Kingdom; on value landed, 1¼ per cent.; on value reshipped, 1¼ per cent.; storage, 2 per cent.; on disbursements, 2 per cent.; on auction sales, 5 per cent.; agency commission, 5 per cent. Vessels bound to other countries: landing, 2½ per cent.; shipping 2½ per cent.; storage, by agreement; agency commission on auction sales, 5 per cent.; ditto on disbursements, 5 per cent. Some years ago it was proposed to reduce the customary commission on cargoes valued at over $50,000, coming from, and bound to the United States, charging only in this case, 1¼ per cent. on the value exceeding that sum.

The port charges at the island of St. Croix are the following: anchorage dues, inward, $15: outward, $15; mooring, $4; pilotage, $1 per foot; warping out and in, $4 to $8, according to the size of the vessel; the bill of health, and health officer, $5 to $10. A vessel of 100 tons will have to pay for official dues about $88. At St. Croix there is an export duty of 5 per cent. on the annual official valuation of sugar, and 8 per cent on that of rum and molasses The

duties on imports are principally *ad valorem*, varying from 5 to 12½ per cent. Some articles such as flour, beef, beans, and other provisions, pay a fixed duty of 25 cents to $1.50 per hundred weight, while every article intended for the plantations, such as puncheons, shooks, staves, hoops, etc., agricultural implements, machinery and parts thereof, for making sugar, distilling rum, or other manufacturing purposes, etc., and also fresh fish and turtles, vegetables; coals, mules, asses, manure, printed books and papers, and furniture previously used by the owner, are free of duty.

In Dutch Guiana foreign vessels on entering the port of Paramaribo must anchor at Fort Amsterdam, six miles below the town, and after receiving the visit of the health officer, and a clear pass, they are permitted to proceed to town.

The port charges at said port are the following: in guilders, estimated at 40 cents each, $1.50 per ton, on all vessels of over 100 tons; passport, $1; light dues, $10; harbor master, $5; wharfage, $10; stamp, $1; certifying the manifest, $3, clearance, $5; bill of health, $3; broker, $50.

The port of Santa Anna, in the Dutch isle of Curaçoa, is to all intents and purposes a free port, for goods are charged on their importation only 1 per cent. on their invoice value, and provisions 1 per cent. on the price tariff formed by the merchants. The port charges on vessels are as follows: pilotage, 75 cents per foot draught for vessels of 200 tons and over; for entering the lagoon, 84 cents per ton for vessels of upward of 100 tons; port dues vary from 12½ cents per ton for vessels under 25 tons, to 25 cents for those above 100 tons; light dues, 10 cents per ton; fort pass, 1 cent per ton. Vessels in ballast pay no port charges if they do not tarry longer than 72 hours.

The foreign trade of the republic of Mexico is carried on either through her ports on the gulf of Mexico and the Pacific ocean, or through the frontier of the United States. There is a regular line of custom houses at Acapulco, Altata, Ascensión, Magdalena bay, Cape San Lúcas, Camargo, Campeche, Coatzacoalcos, Frontera, Guaymas, Guerrero, Isla del Cármen, La Paz, Laredo in Tamaulipas, Manzanillo, Matamoros, Mazatlan, Mier, Nogales, Palominas, Paso del Norte, Piedras Negras, Presidio del Norte, Progreso, Puerto Ángel, Quitovaquita, Salina Cruz, San Blas, Sásabe, Soconusco, Tampico, Tijuana, Todos Santos, Tonalá, Túxpam, Vera Cruz, and Zapaluta.

Vera Cruz is the chief port of the republic, with whose capital it is connected by railway. A lighthouse stands on the NW. angle of the fortress San Juan de Ulúa. The harbor, lying between the town and fort, is very unsafe; the anchorage is so bad that vessels must for safety make fast to rings fixed in the castle walls; even this is at times not sufficient protection against violent northers. The harbor is unsuited for vessels drawing over 18 or 19 feet. Vessels of large draught lay at Sacrificios, which has good anchorage for a few vessels.

At Anton Lizardo there is a secure and commodious roadstead.

Tampico, 4 miles from the mouth of the Pánuco river, has its entrance obstructed by a bar whose depth is variable, the average being 8 or 9 feet. Vessels drawing over 8 or 9 feet anchor outside the bar; there is no danger except from northers, which occur only in the winter months.

Túxpam is on the river of the same name and 7 miles from its mouth; the river is navigable by steamers for 50 or 60 miles from the entrance, but there is a bar to cross in entering, with at best only 10 to 14 feet of water, and much less in the dry season. There is a good anchorage outside the bar, where large ships load. The roadstead is open, with no protection from northers; the anchorage is good: vessels lay about one-half mile from the shore, and receive cargo alongside.

Santa Ana is a port on the gulf of Mexico; large vessels can lay in the roads, where there are 4 to 5 fathoms of water; there is a bar with 7 feet of water. A vessel of about 600 tons loading with mahogany would have an expenditure of $1,500.

Tlacotálpan, a port on a lagoon, 15 miles SE. from Alvarado; vessels of 13 feet draught can reach it.

Minatitlán is in Tehuantepec, on the Coatzacoalcos river, 18 miles from its entrance into the gulf of Mexico. The river is navigable for large vessels below Minatitlán; but the entrance is obstructed by a perilous bar, which vessels drawing over 12 feet cannot cross. Vessels lay at anchor, or make fast to posts along the shore; from May to October is the rainy season, when the place is very insalubrious.

Tabasco, near the entrance of the river Tabasco into the gulf of Mexico, on its right bank. The channel across the bar is changeable, the depth varying with the winds and season; when the northers prevail—October to March—the depth is usually from 9 to 11 feet; at the close of the rainy season sometimes there are only 7 feet; when the river is high the bar is shoal, and vice versa. Vessels should not charter to load over 9½ feet deep; cargo should be deliverable alongside at the merchant's risk and expense. There is anchorage outside the bar in 6 fathoms, where vessels complete their cargoes. The western channel is the only navigable one. There are 5 principal bars on this coast with the following average depths: the Tabasco, sounding 8½ to 9½ feet; Chiltepec, 10 to 11 feet; Dos Bocas, 6 to 7 feet; Cupilco, 5 to 6 feet; Santa Ana, 6 feet—all sandy and variable.

Campeche, or Campeachy, is a large harbor shoaling toward the shore; vessels drawing 10 feet can only approach within a mile; those drawing 15 feet must lie off some 6 or 7 miles from the shore; however, the anchorage is secure; there is a pier for boats. It is an unhealthy place in the summer for strangers, yellow fever prevailing.

Laguna de Términos, a port situated about one mile within the southernmost extremity of the Isla del Cármen, which is on the most westerly of the straits or entrances leading into the basin or lagoon of Términos; a secure port, and one of the best on the gulf of Mexico, with 12 to 14 feet of water over the bar, at the entrance of the lagoon; vessels of greater draught load and unload with lighters outside the bar in 3 to 4 fathoms with good holding ground.

Sisal has a good anchorage off the castle; it was formerly the port of Mérida; and since the custom house was removed to Progreso the trade of Sisal has fallen off.

Progreso has anchorage in 4 to 6 fathoms; at night a light is visible at 6 miles from the top of the custom house, SE. from the anchorage, 4 to 4½ miles distant.

Jesus María, 72 miles SW. of the entrance to the Rio Grande. The bar was dredged by the Matamoros and Laguna Madre railroad company in connection with a canal to make it a port for large vessels.

Puerto Ángel, a small port of Oajaca, lies on a broad, open bay, on the Pacific coast, and has an anchorage in 12 or 13 fathoms, safe from WSW. winds; the landing is difficult, because of heavy swells. It was opened to commerce in 1868.

Soconusco, near the Guatemalan frontier, is an open roadstead with good anchorage; an iron wharf has been constructed there.

Salina Cruz has no trade but that of the steamers running along the coast.

Tehuantepec, a river port, about 25 miles N. from Ventosa, the principal port of the isthmus on the Pacific side.

La Ventosa has an open harbor, affording good anchorage; the gulf is subject to northers, but they blow off shore and the water keeps smooth.

Ahuatulco, or Guatulco, an open roadstead on the western end of the Tehuantepec gulf, has a good anchorage, well sheltered from all winds, except those from E. to SE. by S.

Maruata, in Michoacán, on the Pacific side, about half way between Acapulco and Manzanillo; in bad weather it is rather insecure.

Chamela or Panela bay, with anchorage in 5 to 8 fathoms; being exposed to the south winds it is insecure in July and August, when heavy swells prevail.

Tonalá is a harbor obstructed by a bar; vessels lay outside to take in mahogany.

San Blas, at the mouth of the Santiago river on the Pacific Coast, has anchorage in 5 to 7 fathoms: vessels require to have good ground tackle, being exposed to westerly gales; in summer it is both unhealthy and unsafe.

Manzanillo is a small, secure harbor; the custom house is at Colima, 140 miles inland.

Acapulco is entirely land-locked, and surrounded by mountains, 2,000 to 2,700 feet high; and visible at a long distance from the sea; the entrance is half a mile wide. The following dangers must be avoided: a reef extending a little way from Punta de Diamante (Diamond Point), and a rock close to the shore on the north side; the chart shows both, as well as a small rock at the head of the bay; the depth of water in the harbor is from 5 to 25 fathoms; the rise of tide, 1½ feet; there are no wharves; cargo is transported in lighters.

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Guaimas, lying near the mouth of a small river which empties into the gulf of California, is a landlocked harbor, protected from the winds by high hills; vessels of any size come close to the town, and anchor in three fathoms; rise of tide, 2½ feet. Libertad, an anchorage in Sonora, on the Pacific, has a secure, commodious harbor for nearly all classes of vessels; but it has no trade worth mentioning.

Mazatlan stands at the head of a bay at the entrance of the gulf of California; its climate is known to be hot—especially in the summer time. Vessels may enter and clear here if bound to Playa Colorada, an open roadstead with good anchorage in 5 to 7 fathoms, about 4 miles from land, though there are a custom house and harbor master at La Brea.

Yalapa, a harbor near Cape Corrientes, well-sheltered, and with plenty of water.

Corralies, a similar harbor, small, but having deep water; the entrance, however, at a few yards from the shore is difficult. American vessels formerly came here for logwood, which is almost exhausted.

Pichilingue is a spacious harbor and bay on the E. coast of Lower California; there is water for the largest class of ships, and the anchorage is safe. La Paz at the head of said bay; large vessels anchor near San Juan Nepomuceno island in 5 to 10 fathoms, about 9 miles from La Paz; but small vessels may anchor within a mile. Loreto lies north of La Paz; the anchorage is exposed; the place has gone to decay.

The republics of Central America, Salvador only excepted, have ports both on the Caribbean sea and the Pacific ocean. Salvador is entirely on the Pacific slope. The chief ports of Guatemala are San José and Champerico on the Pacific and Santo Tomás and Izabal on the other side; she has, however, other ports of lesser importance on both seas. Honduras posesses, among others, Trujillo, Omoa and Puerto Caballos or Cortés, on the Caribean sea, and Amapala in the bay of Fonseca. Salvador has La Union, La Libertad, and Acajutla. Nicaragua carries on foreign commerce through her Pacific ports, San Juan del Sur and Corinto or Realejo, and through San Juan del Norte, otherwise known as Greytown. And finally, Costa Rica, though owning several ports, does all her foreign trade through Limon on the northern coast, and Puntarenas on the south.

Istapa is an open roadstead, about 60 miles N. N. W. from Acajutla. Vessels lay in 10 to 15 fathoms about ¼ mile from shore.

San José, the chief seaport of the republic of Guatemala, is an open roadstead with safe anchorage in 9 or 10 fathoms, one mile from the shore. There is a good wharf extending 900 feet outside the surf.

Champerico has an open anchorage, and the landng is difficult; there is an iron pier.

Santo Tomás, a free port on the bay of Honduras, 12 miles east of the river Dulce, has an excellent harbor, which may some day become an important entrepôt; the anchorage is in 5 fathoms, and the largest ships may easily enter; there are 18 feet of water close to the shore.

Izabal on gulf Duce is entered from the sea by the river Dulce, leading from the gulf of Honduras, about 30 miles. The river is barred, and can be navigated by vessels of only 6 feet draught, that is to say, light-draught schooners.

Trujillo harbor has an anchorage in 4 to 6 fathoms a mile from the shore; exposed to the northers in winter.

Omoa has an inner and an outer anchorage; in the harbor there are only 12 or 13 feet of water; the anchorage has from 3 to 5 fathoms; it is exposed to northers from November to March, but being pretty well sheltered well-moored vessels are in no danger. The place is unhealthy, especially in the hot months, owing to yellow and other fevers.

Puerto Cortés, or Caballos, is a small, but fine bay and anchorage near the Ulloa river, which has a bar at the entrance. Vessels anchor outside the bar in 8 fathoms, and take in timber, etc. Wanx river is blocked by a bar of 5 or 6 feet; vessels come here to load with mahogany, etc., and must anchor outside in an exposed position, where the cargo is towed out to them.

Ruatan island in the bay of Honduras has Port Royal or Medina, which affords a safe harbor, but somewhat difficult of access.

Roncador, another island in the same bay, is partly surrounded by reefs, but there is anchorage on its west side in 6 or 8 fathoms.

Utilla, another of the bay islands, has a good anchorage for small vessels; the port is frequented for fruit. East harbor, on south side, affords good anchorage.

La Union harbor is a complete basin with a depth of 4 to 5 fathoms of water; it is probably the best harbor in Central America.

The bay of Fonseca is 10 miles in diameter, well sheltered by islands, and the surrounding high lands.

La Union stands on an inner harbor of the gulf, at the north side around Chicarene point.

Conchagua is on the south side of the harbor.

Amapala is a port of Tigre island, on the same bay; is one of the most important ports between San Francisco and Valparaiso, with good anchorage.

La Libertad is one of the chief ports of entry of Salvador. The anchorage is exposed to the full sweep of the Pacific, and the landing is bad. Heavy rollers break along the shore, especially at full and change of the moon. A light at the western angle of the custom house is visible at 6 miles, but obscured by a building between the bearings N. by W. and N. N. W. Vessels anchor ½ mile from an iron pier; cargoes are transferred in lighters or bongos.

Acajutla is the port of Sonsonate, which is about 12 miles in the interior. The harbor is an open roadstead sheltered by a reef of rocks, which project from Point Remedios to the southward of the bight, where the village is situated. In making for the anchorage the volcano Izalco is brought to bear N. E. ½ N., which course will lead in until the port is made. The harbor flagstaff is a good guide. The marks for anchorage are, Point Remedios, S. E. to S. E. ½ E., and the flagstaff N. E. to N. E. by E. in 8 or 10 fathoms, mud bottom. In winter it is safer to anchor farther from shore in 12 to 15 fathoms. Rise of tide, 8 or 9 feet at springs. The landing being difficult, vessels have to load and unload by means of bongos, which are got on and off the beach by a line attached to an anchor placed about 150 fathoms outside the breakers. A buoy is moored outside the iron mole. A fixed light, visible at 7 miles, is exhibited from the end of the mole. To escape the dangers off Point Remedios, the light must not be brought to bear north of N. N. E. ½ E.

Acajutla is now in direct communication by railway with the coffee region of Santa Ana.

San Juan del Norte, or Greytown, is at the mouth of the San Juan, a small river with 4 to 4½ feet of water on the bar, which shifts and sometimes fills up entirely. Vessels come to anchor in the open roadstead in about 6 fathoms, one mile from shore, with muddy bottom; in heavy weather they drag in shore about half a mile, where there is good holding ground in four fathoms. The northers blow N. N. E. and almost directly on shore. Vessels lay in a bight. The sea comes in from the eastward. The northers are severe from November to March, the severest being in December. Communication with the shore is then uncertain. Vessels may lay at anchor all the year round. They should always have extra ground tackle. Discharging and loading is done in lighters at the expense of cargo.

The harbor of Corinto or Realejo is formed by the meeting of two estuaries; it is a spacious harbor with a good depth of water, and perfect shelter. The entrance to the harbor is through a narrow passage in the reef of rocks separating it from the ocean. A pilot is necessary. Goods are brought from Corinto in launches. This port is the natural outlet for Leon and Managua.

San Juan del Sur, situated less than 10 miles from the west shore of Lake Nicaragua, is the port of Rivas; the harbor is an open roadstead, but safe, except in the winter months.

Puntarenas is on a small peninsula in the gulf of Nicoya. It was at one time the chief port of Costa Rica, but is now reduced to small importance. The harbor is divided into two anchorages, one, situated between the town and the mainland, can accomodate vessels only under 7 feet draught: those drawing more anchor in the outer harbor.

Puerto Limon is 140 miles from San José, the capital of Costa Rica. Since the construction of a railway to it from the center of production, it has become the chief port of the republic. It was made a free port and allowed other privileges. The harbor is safe and commodious; vessels of 20 feet draught can come within a cable's length of the wharf. It is one of the safest ports in Central America.

Culebra is a port of Costa Rica with a good harbor, and safe anchorage for the largest vessels.

The republic of Colombia possesses a number of ports on both the Atlantic and the Pacific sides, the chief ones at present being Colón and Panamá on the isthmus, Barranquilla, Cartagena, Santa Marta, Rio Hacha, Tumaco, and Buenaventura.

Cólon or Aspinwall, and Panamá are free ports, and may be looked upon as highways of nations, rather than as ports of Colombia. The former is a fine harbor off the island of Manzanillo, and called also Limon or Navy bay; it is a large roadstead about 5 miles wide, with good anchorage in 3 to 6½ fathoms of water. Vessels of 26 feet draft come to the wharves, where they are protected. The rise of tide is 2 feet.

Panamá is the southern terminus of the Panamá railway. The anchorage off the town is safe at all times. The nearest anchorage for vessels of heavy draft is 1¾ miles from the shore, owing to coral reefs, which extend into the bay. The transportation between ship and shore is carried on between half tide and high water, by means of small steamers and iron launches. Vessels of 200 to 300 tons may lie alongside the pier, grounding in mud at low water. The average rise of the tide at Panamá is 12 feet in the spring, and 14 feet in the autumn and winter. Very high spring tides rise to 21 feet. In the bay are several islands utilized by the railroad and steamship companies.

Barranquilla is the chief port of Colombia, and through it pass all merchandise and passengers bound to Bogotá and the interior. In former times Cartagena was the commercial metropolis; it began to decline in the present century, but its trade has considerably revived within the last 15 years. The ship canal (dique), connecting the port with the great Magdalena river, has fallen into disuse because filled up and overgrown with jungle, in consequence of which vessels sought a harbor farther up at Barranquilla, which is near the mouth of the Magdalena. Barranquilla seems destined to be the commercial emporium of Colombia. It has its drawbacks, however, for a large bar has been forming at the mouth of the river, preventing the entrance of steamers.

The town of Sabanilla was then started on the spit, distant by railway 14 miles from Sabanilla. The railway is owned and operated by a German company. The harbor of Sabanilla, now the principal one of the republic, is inconvenient, unsafe and shallow, with many shifting sand-bars, and exposed to heavy wind-storms; it is also inaccessible from the delta. Sabanilla is a desolate place, noted mainly for its sand-dunes, its filth, and poverty. Vessels are allowed to enter the Magdalena at Bocas de Cerrizas, and to go up to Barranquilla, 20 miles from the anchorage at Sabanilla, or 6 miles from the bar. Those drawing 18 feet can enter safely. Sailing vessels have to be towed. Pilots are taken at Sabanilla. It is easy to enter the river, and navigation is safe to Barranquilla, but the bar is unstable, and tending eastward. It is very possible that by reclaiming the old ship-canal between Cartagena and Calamar, or by constructing a railway between Cartagena and Barranquilla, the former may regain her old prestige. The custom house for the harbor of Sabanilla is at Barranquilla. Coasting trade is allowed to all kinds of vessels between the different ports, whether they be of entry or not, or between free ports, subject to the formalties prescribed by law.

Cartagena (de Indias) has a very fine harbor, where vessels can lie safely the whole year; the entrance is buoyed. Vessels of large draught lie in 6 fathoms off Pastello point; those drawing 6 feet, at the city. The bottom is soft mud. Vessels load and unload by flat-boats and bongos.

Santa Marta harbor is one of the best on the south Atlantic coast, but somewhat insecure. The Manzanares river empties a little to the south of the city.

Rio Hacha is a port near the mouth of the river of the same name, on the Caribbean sea; an open roadstead. Vessels anchor 1¼ miles from shore, at which distance large ships can ride in safety. Cargoes are landed in bongos or canoes, and this can be done only between 8 A. M. and 2 P. M., because of the north-east winds.

Tumaco is a safe port. The entrance is intricate, and some parts of the channel have only 12 feet at low water.

Buenaventura is a port on the river of the same name, 10 miles from its entrance into Chocó bay. The river is navigable as high up as the town for vessels drawing 24 feet. The anchorage is reached without other difficulty than the Negrilla rock, lying W. by N. 8 miles from the two islands situated off the entrance. On the north side of the entrance at the Bazan point a pilot may be obtained for the river. The rise of tide is 12 to 13 feet. Buenaventura is an entrepôt for a large extent of country, and the trade is considerable.

There are other ports worthy of a few remarks.

Honda is a small port in the department of Magdalena on the Caribbean sea; it is on a bay of considerable extent, with clear, deep water; no guide but the lead is necessary; the depth is from 4 to 8 fathoms.

Portobello is a very fine port; the best anchorage is in 10 to 12 fathoms, NW. of the battery Santiago de la Gloria; small vessels may approach nearer the town.

Chagres is about 8 miles south from Colón, and on the Chagres river, at the mouth of which there is a bar; the depth there is 12 feet. In the harbor there are 5 or 6 fathoms, and outside of the bar 3 or 4 fathoms. This anchorage is insecure in the winter because of northers.

Darien, a gulf on the Atlantic side, and a bay on the Pacific side of the isthmus of Darien. The gulf is a deep inlet. The navigable river Atrato empties near its head. Spring tides rise 1¼ feet. The bay of Darien is a fine sheet of water, some 10 miles long and 1 to 3 miles wide, and joined to the Pacific by the extensive bay of San Miguel, 78 miles E.S.E. from Panamá. The depth of water is 5 fathoms up to within a short distance of the mouth of the Sabana river, beyond which it is shallower. The rise and fall of the spring tide is 22 feet.

At Coquita, near the mouth of the Atrato river, which is navigable to Quibdó, the anchorage is good in 10 to 15 fathoms.

Cupica is on a fine bay, with a good anchorage, deep enough for the largest vessels.

Paulón is a deep basin connected with the Pacific by several streams. Numerous towns are situated on these streams. Vessels coming to them must take a pilot.

The ports of Venezuela open to foreign commerce are La Guayra, Puerto Cabello, Cuidad Bolívar or Angostura, and Maracaibo. There are other places used for the coasting trade, such as Turiamo, Carupano, Coro, Cumaná, Guayana, Nueva Barcelona, and others of less importance.

La Guayra, in the state of Caracas, is an open anchorage without pier or mole. Vessels moor in 10 to 20 fathoms, ¼ to ¾ miles from shore, with good holding ground. Local fevers attack strangers; yet no particular season is considered unhealthy. The port is in telegraphic communication with Caracas. Foreign vessels may land their inward cargoes partly here, and the rest at some other port; they may also take in a part of their cargo here, and finish loading elsewhere; but they are not permitted to engage in the coasting trade.

Puerto Cabello has a spacious harbor, formed by several islands and low tongues of mangrove land. There is a depth of water for the largest vessels close to the shore. Vessels after discharging at La Guayra often go to Puerto Cabello for greater security, make repairs, and take in a part of their cargo, and then return to finish loading at La Guayra.

At the Isla Brava there is a wharf with 16 feet of water.

Tucacas is a neighboring port, frequented by vessels which load with copper ore from the Aroa mines.

Puerto Cabello is the port of entry for Coro and Maracaibo, and also for Tucacas. Several lines of steamers touch at Puerto Cabello.

The port of Angostura, or Cindad Bolivar is on the Orinoco river, 220 miles from its mouth. It is the entrepôt of merchandise transported from the interior on the several branches of the river, which is navigable for small crafts a great distance above the town. Small flat-bottomed steamboats ascend the Meta and the Apure, chief affluents of the Orinoco, during the rainy season for a distance of 800 miles, bringing produce even from the republic of Ecuador. The tides on the Orinoco are felt as far up as Angostura; but the rise is not material above 100 miles from its mouth. The annual rise of the Orinoco is from April to September, both inclusive, and is 35 feet at 1,000 miles from the ocean. Early in February it is at the lowest, continuing so till April. The river has several mouths, the chief of which is the Boca de Navios, whose entrance is on a mud bar, about 2 miles from Barima point. A pilot may generally be obtained at the point, and while waiting for one, vessels should anchor in 4 or 5 fathoms to the southward of the entrance. There is a pilot station at Cangrejo point. On the bar there is generally a good depth of water at high tide, and 12 to 13 feet at low tide. The depth does not vary much at different seasons. Vessels that can cross the bar may reach Angostura.

Boca de Macareo, another mouth of the Orinoco, has 12 feet at high tide, and 9 or 10 feet at low tide on its bar. A steamer runs between Ciudad Bolivar and New York every six weeks, and another twice a month between the same port and the island of Trinidad.

Maracaibo is a port on the west coast of the strait which connects Maracaibo lake with the Caribbean sea. The port has deep water and is secure, but owing to the bar at San Carlos, only vessels drawing not more than 11 feet can reach it; some may load at times to 12 feet, but are liable to detention. The rise of tide is 2½ feet. There is a good wharf and lighters are to be had at all times. The climate is excessively hot and unhealthy. Maracaibo affords an outlet for the produce of a great part of the republic of Colombia. Large quantities of merchandise from abroad arrive yearly at this port to be transported by lake and river steamer to Cúcuta in Colombia.

Turiamo is a small port, 10 miles E. of Puerto Cabello; it has a deep harbor capable of admitting vessels of any size.

Carupano is an open roadstead in the province of Cumaná. Vessels anchor about ¾ of a mile from the town in 2½ fathoms. The anchorage is not well sheltered.

Cumaná has a roadstead capable of receiving any number of the largest vessels.

Coro is at the head of the gulf of that name; the town can be reached only by small craft. Large vessels lie at La Vela de Coro, about 6 miles distant, on the other side of the neck of land joining the peninsula of Paraguana with the mainland, where there is a good anchorage.

Guayana is on the Orinoco, 120 miles from the mouth. Vessels of 17 to 18 feet draught may ascend the river. The bar at its mouth has 17 to 18 feet of water at high tide, and 12 to 13 feet at low tide.

Nueva Barcelona is a port on the river Neveri, 3 miles from its entrance into the Caribbean sea. The water is shoal at the mouth, so that vessels cannot approach the town. There is a good anchorage about a mile off shore, in 3 or 4 fathoms of water.

The ports of entry of the republic of Ecuador are Guayaquil, Esmeraldas, Manta, Caraques, and Callo. But the first named is the emporium through which pass most of the imports and exports.

Guayaquil is situated about 40 miles from the mouth of the estuary of the same name. The harbor is safe; vessels of 19 feet draught can go to Guayaquil. The anchorage is safe in 7 fathoms. The rise of water is 11 feet. At Puna, situated at the entrance of the Guayaquil river, the health-officer inspects the vessels, and a revenue guard is placed on board of each.

Punta Arenas is a pilot station on Puna island. The estuary is here 12 miles wide.

Santa Elena is on the bay of this name, just north of the entrance to Guayaquil. There is good anchorage for large vessels, and a good landing at the custom house. The chief trade of the place is in salt.

The Galápagos islands form a group some 600 miles west from Ecuador, but belonging to this republic. Albemarle, the largest of the group is 60 miles in extent. There is good anchorage in Post-office bay, a place of resort for whalers to obtain supplies, and leave their letters.

Brazil.—Excepting Amazonas, Minas Geraes, Goyaz, and Matto Grosso, all the provinces possess seaports. Those four central provinces have in compensation for their lack of a seacoast, navigable rivers running through their territory. There are between 40 and 50 seaports on the Brazilian coast, that of Rio de Janeiro, holding the first rank by virtue of its security and its great extent, the harbor having a circumference of over 90 miles. The chief ports of Brazil are Rio de Janeiro, Bahía, Pernambuco, Maranhão or Maranham, otherwise called San Luis, Para, Rio Grande do Sul, San José do Norte, Porto Alegre, Santos, Paranagua, Antonina, Parahiba, Ceará, Santa Catharina, Alagoas, Sergipe, Espíritu Santo, Rio Grande do Norte, and Piahuy. About 4,500 vessels, measuring 1,000,000 tons, clear from these ports every year.

Rio de Janeiro is situated on the west side of the bay of that name. There are 5 or 6 fathoms of water all the way to the anchorage. The anchorage for merchantmen is the N. E. one, and adjoins the city. The larger ones arrive at it by passing Cobras isle, and are separated from the war ships' roads by a shoal bank whereon the sea breaks at low water, spring tides, when the winds from the offing are violent. Vessels ordinarily moor north and south in the bay of Rio, though it might be preferable to moor north-east and south-west, especially during the heats of the summer. The tides are irregular and not of equal duration, the ebb usually running longer than the flood, particularly after heavy rains. The anchorage is secure and is very rarely disturbed by violent winds. Rio de Janeiro is considered the finest bay in America, or in the entire world. The navies of all nations might lie at anchor in it at the same time. It is one of the most safe, secure and sheltered in the globe; there are no perils on entering, and the smallest depth of water is 6½ fathoms. Ferries connect the city of Rio de Janeiro with the opposite town of St. Domingo. There are two excellent dry-docks excavated out of the solid rock. Vessels disabled off Cape Horn, or elsewhere in the South Atlantic often call for repairs at Rio, but such work is costly. On the north side of Cobras island is the naval arsenal, where there is a dry-dock of 300 feet in length and 92 in breadth, with 70 feet entrance, and a depth over the sill of 28 feet. Another dock of still larger dimensions was afterwards constructed. This port, besides its own large business, does an extensive transient trade in English coal and general merchandise, as well as wheat from the Adriatic, in exchange for produce. Several lines of steamers keep Rio in communication with the other ports of the Brazilian coast as well as with the nations of Europe and America.

Angra is a port in the province of Rio de Janeiro which admits vessels of any size; but the channel leading thereto is intricate. A pilot is necessary to enter.

Parati, or Paraty, is a small port on the western side of Angra bay.

Macahé, a river with an entrance 200 feet wide and 9 feet of water on the bar, empties into the Atlantic ocean north from Cape Frio. The anchorage outside is sheltered by the Santa Ana islets.

Imbetiba is on a small bay, 2 miles SW. from the Macahé river. There are some rocks projecting at the S.W. end of the bay, which afford partial shelter to the wharf which has been built, but vessels lying at anchor in 4 fathoms of water are exposed to a heavy swell from the S.E. The depth of water at low tide at the wharf is 15 feet.

Barra de S. Joao, Cabo Frio, and Mangaratiba are other seaports in the province of Rio de Janeiro.

Bahia is a port on the bay of Todos os Santos. The bay has two entrances, one on each side of Itaparica island; the one on the west is shallow, and is used only by coasters; the eastern or main entrance is contracted by a bank, but the channel, about 2 miles wide, expands into a basin capable of holding any number of vessels. The depth of water varies from 5 to 40 fathoms; the usual anchorage is near Fort do Mar, abreast of the city, where vessels are allotted berths. There are three anchorage grounds which vessels, under the direction of the customs officials, avail themselves of, according to the nature of their cargoes.

Pernambuco is on the Atlantic. The town, also known as Recipe, is fortified, and contains the dockyard and the larger warehouses. The entrance to the port is formed by the sudden breaking away of a 6-mile reef which runs parallel to the shore, resembling a wall. The break leaves an open space free from rocks; the harbor is within the reef, well sheltered from swell. There is anchorage for vessels drawing 18 feet, and at extra tides 19 feet; those of greater draught anchor outside in the roads, and load and unload by means of lighters. North of the reef is the Poço with 20 feet of water at low tide. The custom house quay accommodates only two vessels at a time, so that most ships load and unload by lighters. While the lighters are at work a custom house officer is on the ship.

Tamandare is a port situated between Bahia and Pernambuco, with anchorage in 3 to 4 fathoms, sheltered by reefs.

Maceio, or Macayo, is a bay situated also between Pernambuco and Bahia. It is an open roadstead somewhat protected by the reef outside, but exposed to storms from all quarters. The anchorage is in 4½ fathoms, sheltered from northerly winds, but from May to September, with prevailing winds from the south, the swells are heavy, and the anchorage is unsafe. Vessels lie off at some distance and unload into barges, receiving cargo in the same manner.

Galinhas, 30 miles from Pernambuco, has an exposed anchorage. Vessels of 15 feet draught and less can anchor opposite the town if they enter at high tide.

Parahiba, in the province of Parahiba, is situated on the Sanhaua branch of the river of that name, 13 miles from the sea. The stream dries up during the summer time in its upper part, but is navigable for small vessels as far as Parahiba. The entrance to the river is marked by breakers. The bar is buoyed, and has 17 feet of water on it at low tide. Large ships anchor off Fort Cabedello, just within the entrance, in 4 or 5 fathoms; those of 16 feet draught load about 3 miles below the town; small craft load at the wharves, where the depth usually is about 13 feet. Steamers run regularly to Pernambuco and thence connect with other ports. A vessel bound to Parahiba must anchor at Cabedello, where, after being duly entered, a custom house officer will be sent on board to accompany her to Parahiba.

Ceará port has a harbor formed by a reef of rocks running parallel with the beach, from which starts the viaduct constructed by the Ceará harbor corporation. This is the chief port of the province of Ceará, and has steam communication with other ports of the empire. The bay is open at several points of the compass, and subject to a constant swell. The anchorage for large vessels is under Macoripe point in 4 or 5 fathoms, 1½ miles from town. Small vessels approach nearer, where the reef of rocks above mentioned affords protection. The accommodation for landing passengers and goods is poor. In rough weather communication between the shipping and the shore ceases. Sailing vessels stand in close to Macoripe, and if a pilot does not come off at once, anchor in 5 or 6 fathoms. Rise of water, 7 feet at spring tides. About 75 vessels, with an aggregate of 35,000 tons, visit this port yearly, of which 25, with 25,000 tons, are steamers. Two British steamship lines from Liverpool visit this port every month alternately. A steamer from New York also makes monthly trips.

Aracaty, Camocim (the best port), Mundahic, and Acarahú are also ports of the same province.

Camocim's entrance is barred, but vessels drawing 15 feet may enter at high tide. The bar breaks in all but the smoothest weather. The rise of water is 14 feet. The trade is nearly all coastwise. The steamers plying between Pará and Ceará touch at Camocim monthly.

Rio Grande do Sul, or Rio Grande de San Pedro, is an important port, situated at the southern end of the lake Patos, near its outlet to the sea. It stands 7 miles from the bar, on the south side of the passage from the lake to the sea. On the north side of the passage is San José do Norte. The anchorage at San José can accommodate many vessels in 5 to 7 fathoms of water, sand, and mud, with good holding ground, and well sheltered from all winds except the south-west. The anchorage at Rio Grande is sheltered from all winds excepting from the north-east, but vessels sometimes drag their anchors. The town of Rio Grande do Sul is comprised in the space from the bar in the south, to about half a mile north of San José do Norte on the north, at a distance of 6 miles from the lighthouse, and as far westward as the anchorage of Rio Grande or San Pedro do Sul. The town of San José do Norte is about 2½ miles ENE. of Rio Grande, and is the better port for vessels while discharging. Vessels drawing above 9 feet must lighter here if proceeding to the town of Rio Grande. No vessel drawing more than 15½ Brazilian palms should attempt to cross the bar of the Rio Grande.

Alegre is a thriving port in the province of Rio Grande do Sul. Its trade is increasing rapidly.

Maranhão or Maranham, a port on the west side of the island of that name, at the mouth of the river also called Maranham. It is a safe harbor with 13 to 24 feet at low water, when the bar has a depth of 13 feet. The tide rises 18 feet at springs, 10 feet at neaps. A pilot is necessary to enter, and may be had at all times outside of San Marcos point, which stands inside of some of the banks lying off the entrance. There is a fair anchorage outside the banks in 10 to 15 fathoms, 2 miles off shore. There are machine shops and foundries and other conveniences for repairing vessels. The port is connected with the other chief ports of the empire by the steamers of the Brazilian company twice a month; with Fortaleza and Pará and intermediate ports by a special line of steamers. Small steamers also ply on the Itapicuru to Caxias, and on the Parnahiba and some other rivers. The Maranham Steamship Company dispatches a vessel to and from Liverpool every month via Lisbon. The Red Cross line from Liverpool, via Hamburg and Antwerp, calls at this port, and thence proceeds via Pará to New York every alternate month; also the Northern Brazil Steamship Company's vessels from Liverpool via Hamburg and Havre, call at this port and thence proceed via Pará to New York once a month; also the United States Mail Steamship Company runs a steamer every three weeks to and from New York.

Itaqui is an anchorage convenient to the port of Maranham, situated behind Itaqui point and Medo island. Vessels having to tarry long in Maranham often go to the anchorage at Itaqui because it affords more water and better shelter from the current than Dos Alagoas.

Pará, otherwise known as Belem, is a seaport about 70 miles from the entrance of the river of that name, which forms the eastern arm of the Amazon, and may be approached by the largest ships. Vessels moor about ¼ mile from the town in 12 to 22 feet. The depth at the wharves is 6 to 7 feet at low water. There is a light vessel in the Braganza channel, entering the Pará, also one at Chapeo Virado point, about 14 miles up the river. When the navigation of the Amazon was opened to all nations in 1867, Pará rose to be the fourth port of the empire in point of trade. Steamers keep up communication with the maritime provinces of the empire, and also with Amazonas through the river Amazon and its tributaries. The Amazon Steamship Company's vessels trade between Pará and Chaves, Itacuan and Soure; Pará and Mancios between the latter and Tabatinga on the frontier of Perú; and between Pará and Cametá. There is a gridiron at Pará which can take out vessels of 600 tons. The width of the entrance to the Amazon between Horte and Ticoca point is 180 miles. The wind and current being opposite, the navigation is easy.

Cametá is a river port on the Tocantins, a branch of the Amazon, 100 miles southwest of Pará. Vessels of 15 feet draught can anchor within 100 feet of the shore in deep water. Most of the trade is carried on by steamers plying between Pará and this place.

Paranagua is a port in the province of Paraná, which has a custom-house, and controls the trade of the province, most of it being carried on by small craft. The channel over the bar has 8 fathoms of water, but being crooked a pilot's services are needed. The pilots do not always board vessels, but indicate their course by means of flags. Breakers extend some distance off the bar. Depth of water at high tide, 22 to 23 feet. There is also a light-house.

Parnahiba is a port with a custom-house, west of Cape San Roque, situated on the Iquarassú river, a branch of the Parnahiba, 12 miles from the sea. Large vessels cannot enter the Parnahiba, but those of any draught may anchor on the outside the bar, 15 miles from the town and take in cargo.

Penedo is on the San Francisco river, 10 miles from the mouth, where there is a bar with 9 feet of water on it at low tide, and 12 feet at high tide. There are 5 fathoms at the town. Vessels should wait for a pilot in the outside anchorage.

Santa Catharina or Nossa Senhora de Desterro is situated on the island of Santa Catharina, off the south-west coast of Brazil. It is an excellent port. There are many good anchorages between its west side and the mainland for small vessels. On the north side is the only good anchorage for large vessels, in 5 fathoms, on a mud bottom, with good holding ground. The outer anchorage is about half a mile from the town in 20 to 24 feet; vessels must, however, discharge a portion of their cargo, if drawing more than 13 feet, at a distance of about 5 miles from town, because of a shoal which has only that depth of water at high tides. Pilots are obtained at Santa Cruz.

Santos is the port for São Paolo, and is situated on the east side of St. Amaro island. The river partially surrounding the island is navigable for vessels of the largest size, which may be loaded within a few feet of the wharves.

Cananea is a port on the bay of that name, with a secure anchorage for large ships, but a pilot is needed to enter it. Most of its trade is coastwise. Ship-building is a business of the place.

Sapitba is a harbor inside of Marambaya, the hill at the west end of that island being 700 feet high, and is a good mark for the entrance.

Mancios on the Rio Negro, about 1,000 miles up the Amazon river, has direct steam communication with Liverpool once a month, via Havre, Lisbon, and Pará.

Estancia, a port 25 miles south-west from Sergipe, on the Piauhi river The depth on the bar is 17 feet at high water.

Natal is on the Potengi river, 4 miles from its mouth. It is in the province of Rio Grande do Norte, and forms a bay obstructed by rocks and sand. The depth of water at low tide is about 15 feet, and about 18 feet at high spring tides. This bay might be made accessible for large vessels by the removal of the banks of sand formed by the river.

Guarape, a port 12 miles above Natal, may be reached by vessels of 150 tons.

Assie and Macaie are also ports in the province of Rio Grande do Norte.

The Argentine republic has several ports on her seacoast, besides a number of river ports. The principal one of the former, and in fact her emporium of trade is Buenos Aires, and of the latter, Rosario.

The port of Buenos Aires is on the right bank of the Rio de la Plata, about 100 miles from the South Atlantic. The river is 80 miles wide at the city, and the navigation is difficult by reason of shoals. In front of the city are two anchorages, known as the inner and outer roads, both of which are exposed to easterly and south-easterly winds, which sometimes make a rough sea, and interfere with the loading and unloading of vessels. The inner road is about 1¼ miles long in a N. N. W. and S. S. E. direction, and about 3 cables' width, with 12 and 13 feet of water. It is formed between the city bank and the coast, the latter being bordered with a bank of rotten stone. To the northward of this inner road is El Pozo anchorage, which has about one foot more of water. Vessels in this anchorage always moor north-east and south-west. Care should be taken not to ground on the anchors, for it often happens, when there is only 8 or 10 feet of water, that vessels are aground and are detained for a number of days. As a general rule many vessels are lying at the anchorage, and to enter it a pilot should be employed. The outer road, northward of the city bank, about 8½ miles from shore, is 3 to 4 miles long, in north-west and south-east directions, and from ½ to ¾ of a mile broad with 18 to 21 feet of water over soft mud. At the entrance is a bar or flat with only 15 feet at the mean level of the river, and occasionally not more than 12 feet. Vessels of moderate draught must anchor 6 or 7 miles from the city in 17 feet, with the residencia in the southern part of the city bearing S. W. by W. Vessels of 20 feet draught must begin to unload cargo at 10 miles from the city. The rise is probably from 3 to 5 feet. The flood runs 5 hours, and the ebb 7 hours, at the rate of 1 to 2 miles an hour. S. E. winds cause the waters to rise. The government of Argentine Republic appropriated $10,000,000 for the purpose of erecting extensive port works and docks in front of the city of Buenos Aires. The Riachuélo canal, to the south of the city, is being deepened. Extensive moles and warehouses were also to be erected on the Riachuélo. Masters of vessels, chartered to load on the La Plata rivers, should have a clause in their charter-parties that the charterer must pay for lightering the cargo in case there should be lack of water for the vessel to cross the bar when loaded.

Rosario is a river port on the west bank of the Paraná, 160 miles above its junction with the La Plata, and 210 miles by river from Buenos Aires. Rosario may be approached by vessels of 16 feet draught at ordinary stages of the river, and sometimes by those of 17 and 18 feet. Vessels that can pass the bar at Martin Garcia (San Juan) can usually reach Rosario. The anchorage is in 10 to 15 fathoms, a cable length from shore. A vessel leaving Buenos Aires with a good southerly wind may run up to Rosario; three-masted schooners being considered the best rig for the trade. The river is 1,000 to 1,200 yards wide to the first tier of islands, with good anchorage in 18 to 28 fathoms at low water.

Ensenada is a port of entry on the estuary of the La Plata river, 30 miles S. E. from Buenos Aires, with a good anchorage on its bar off Punta Lara, 2 or 3 miles from town. There is a pier 8 miles to the westward of Ensenada harbor, 3,280 feet long, with machinery for loading and discharging. At the outer end of the pier there are 14 feet of water at low tide, with a soft muddy bottom. The depth is reduced to 13 feet sometimes by S. W. winds. Vessels drawing 16 feet can unload at the pier.

Punta Lara road, between the point and the pier of the same name, is a good winter anchorage for vessels of moderate draught, being well sheltered and having 16 to 18 feet. Vessels drawing 13 feet enter Punta Lara road at low water. There is railway communication with Buenos Aires.

Laguna de los Padres is an anchorage in an open roadstead somewhat exposed to winds from the N. E. Vessels must enter and clear at Buenos Aires.

Corrientes is a river port at the junction of the Paraná and Paraguay rivers. Its position gives it importance. Vessels drawing 7 feet can reach Corrientes at low stage of the river. At high water 14 feet can be carried up at times.

Cármen is on the Negro river, 5 miles from its mouth. The bar at the entrance has 20 feet at spring tides, the rise and fall being 15 feet. The chief trade of the port is with Buenos Aires.

San Nicolás is a port on the Paraná, 190 miles above Buenos Aires, and about 85 miles south from Rosario. Vessels that can pass Martin Garcia will be able to reach San Nicolás. They moor alongside or near the banks, but this is not safe for those drawing over 14 feet.

Zárate is on the Paraná de las Palmas, 65 miles above Buenos Aires. Vessels of 1,000 tons burden can usually ascend to Zárate. Pilotage is somewhat higher than at Buenos Aires.

Rio de Chuelo is a river port, a few miles south of Buenos Aires, with a soft mud bottom, and a bar of 7 to 14 feet at the entrance. Abreast of the little town at the mouth there are 10 to 17 feet of water. The place has warehouses, workshops, and saladeros. Numerous coasting vessels frequent this port.

San Matías is an extensive bay on the east coast of Patagonia. The entrance is about 60 miles wide; extending inward it forms a large gulf.

San Antonio on the N. W. shore has one of the best harbors on the coast. Its entrance is somewhat exposed, but perfectly secure inside.

San José, a harbor on the east coast of Patagonia, lies at the southern end of the San Matías gulf, and is 25 miles long by 10 wide. Is is said to be a good anchorage for large ships, with a rise and fall of tides at springs of 28 feet.

Puerto Bueno is a fine harbor on the east side of Sarmiento channel, which is the passage between the islands north of Magellan strait and the mainland. It offers a snug anchorage for steamers, etc., passing through the straits. There is an inner and outer port, both excellent.

Patagones is a port on the Negro river of Patagonia, 20 miles from its mouth. Since the Argentine government established a custom house in the place, a considerable trade has sprung up.

Port Deseado is a harbor and new settlement on the east coast of Patagonia. The harbor is said to be accessible for vessels of any size. The depth is 6 fathoms at low tide, and there is a secure anchorage within 6 miles of the entrance.

Port Henry is a large harbor with deep water on the west coast of Patagonia near Cape Tres Puntas. It may be used as a harbor of refuge, being well sheltered except from the west.

Chaput is a port of Patagonia with a good harbor. There is a Welsh colony at this place.

The republic of Uruguay possesses several sea and river ports, namely, Montevideo, Maldonado, Nuevo Roman, Paysandú, Colonia del Sacramento, and Fray Bentos; Montevideo being not only the chief port for foreign trade, but also the best port of the Plata river, though exposed to gales from the S.W.

Montevideo is a fortified place, standing on a peninsula extending into the estuary of the La Plata on its north side, 125 miles E. by S. from Buenos Aires. The harbor within a certain line has 17 feet of water on an average. A ship drawing 21½ feet must lie outside of the harbor limits. A strong wind from the south causes the water to rise 5 or 6 feet, and large ships take advantage of it to go inside the harbor limits, and when discharging work in nearer the town, as the ship lightens or the water rises. When the wind changes the waters calm, and the ships sink into soft mud, so that no damage is done. There is no regular ebb and flow. The water is brackish. Higher up, at Buenos Aires, the water is fresh. The pampero, or south-west gale, is the cause of much delay, particularly in the winter months. It is sometimes impossible to do any work, and no communication is had from the ships in the river with the city. For this reason vessels on being chartered for Montevideo should have the words "running lay-days" inserted in the charter party, and not accept the clause "weather permitting." They should have a clause reading thus: "ship's laying days to count as soon as the ship is reported to be as near the port as she can safely get." Monte-Video, which gives the place its name, rises on the western side of the bay, an isolated cone 465 feet high. It is crowned by a fort and a lighthouse, which exhibits a flashing light visible at 25 miles. There are 4 dry-docks; the one at the Cerro (Jackson and Cibils') admits vessels of 24 feet draught; that of Maná at Montevideo will admit vessels 275 feet long, with 45 feet of beam, and 12 feet draught; Gounouilhon's is not so large; Manton's, at Colonia, will take vessels of the length of 250 feet.

Maldonado, on the north coast of the estuary of the Plata river, is an open roadstead with a tolerably secure anchorage in 5 or 6 fathoms, ½ to ¾ of a mile off shore. There are no tides in Maldonado bay. Vessels of any size may anchor in 5½ fathoms. A pilot resides at East Point, who is a general pilot to Buenos Aires, etc. There are also pilots, mostly English, American, or Italian, off this bay.

New Roman is a port 135 miles above Buenos Aires. Vessels of 12 and occasionally 15 feet draught can reach it; but there is little trade.

Paysandú is a port on the Uruguay river, 165 miles above Buenos Aires, and 100 miles above the entrance of the Uruguay into the La Plata. The navigation of the Uraguay is difficult, and a pilot should be employed. Vessels drawing 10 feet, and sometimes 11 feet, ascend to Paysandú.

Colonia, or La Colonia del Sacramento, is on the north shore of the Rio de la Plata, 15 miles N. E. from Buenos Aires, and 80 miles N. N. W. from Montevideo. Some 27 years ago it was made an open port for the landing and transshipment of goods. Vessels of 18 feet draught anchor in the roads. The entrance is difficult because of the reefs sheltering the roadstead. There is a railway for ships of large size; also a dry-dock attached to a submarine railway, extending 650 feet into the water, and admitting ships of 1,000 tons. Vessels coming to this place, more convenient than Rio de Janeiro, for repairs, are free from all government charges. The place is in telegraphic communication with Buenos Aires and Montevideo. Colonia is the only port on the river with deep water close to the shore, and secure shelter.

Fray Bentos is a port of the Uruguay river, 105 miles above Buenos Aires. The river—about five miles wide here—is somewhat shallow. There is a channel between the shoals by which ships that can pass Martin Garcia are enabled to reach Fray Bentos.

Gualeguaychu, of which Fray Bentos is the port, is on a stream of that name, 30 miles above Fray Bentos. Vessels drawing 16 feet have at high water ascended to Fray Bentos; a pilot is necessary.

In Paraguay the only port open to foreign trade is Asunción, a safe and commodious harbor, provided with warehouses and other buildings for the safe-keeping of merchandise in transit.

Asunción is on the Paraguay river 219 miles from its mouth, and 865 miles by the river from Buenos Aires. The city lies on a bay which forms an arm of the river. Vessels are moored to the river bank at a distance of 20 to 30 feet, loading and discharging cargo over a stage. The rise in the Paraguay usually begins in February and continues until June. When this river is low the Paraná is high, and the waters of the latter force back those of the Paraguay. The average level between high and low water is 9 feet, but it is at times 12 to 14. During the average rise vessels of 12½ feet draught can reach Asunción: but when the river is low navigation is not possible with a draught of over 9 feet. There is a stone quay bordering the river, on which stand the arsenal and some workshops, mainly for shipbuilding.

The republic of Perú has a number of ports, which are of three classes, namely, ports of entry of the first order, minor ports, and by-ports. Of the first named are Callao, Payta, Salaverry, San José or Lambayeque, and Mollendo; of the second, Ilo, Chilca, Atico, Chala, Pisco, Huacho, Casma, Islay, Pacasmayo, and Túmbez. By-ports are those open for the exportation of produce and manufactures of the country, and for the importation of foreign merchandise by vessels proceeding from national ports of entry, minor ports, or other by-ports, to wit: Patillos, Chucumata, Molle, Lomas, Nasca, Salinillas, Caucato, Morro de Sama, Cocotea, Chincha or Tambo de Mora, Cerroazul, Ancón, Chancay, Supé, Samanco, Chimbote, Santa, San Bartolomé de Chao, Guañape, Santiago de Cao, Malabrigo, Chérrepe, Eten, Pimentel, Sechura, and others.

Callao is the seaport of Lima, the capital of Perú, and the finest harbor of the republic, seldom visited by heavy storms. The harbor is sheltered toward the south by the barren island of San Lorenzo, 9 miles in circumference, and whose highest point is 600 feet above the sea-level. The depth of water varies from 8½ fathoms close to the shore, to 16 fathoms in the middle of the roadstead. Vessels usually go for a berth as near the landing as possible, but when calling for orders, or for their clearances, they anchor to leeward of the fleet, thus facilitating their departure. There is a good wharf, though too small for the increased demand for space by shipping. Harbor works, consisting of sea walls and docks with berthing space for 30 large ships, were completed early in 1875, and superseded the old and inconvenient pier and boat harbor. These works comprise also a number of steam cranes

for loading merchandise, a triple line of railway along the dock walls, gas-light, and supplies of fresh water. A floating dock, 300 feet long, capable of taking up a vessel of 21 feet draught and 5,000 tons weight, has been in operation since 1863. There are seven lines of steamers trading between Europe and this coast, viz: the Pacific Steam Navigation Company, whose works occupy a large area; the Gulf line of steamers of Greenock; the Campagnia Generale Italiana of Genoa; the Compagnie Maritime du Pacifique; the Kosmos line of Hamburg; the South Pacific of Hamburg; and the Compañia Sud-Americana of Valparaiso. All these companies have agents at Lima and Callao. The distance between the port and Lima is only 7 miles; railway trains run between the two places every hour. The chief commercial houses are at Lima.

Payta, 480 miles N. N. W. from Callao, is one of the best open ports on the coast. The anchorage is in 7 to 10 fathoms off the centre of the town. There is a good mole and landing place, and a railway from Payta to Piura, the provincial capital. There is steam communication with Callao, Panamá, etc.

Huanchaco has an open roadstead in 7 fathoms, 1 to 1½ miles from the shore. The roadstead is subject to heavy rollers, and the landing is bad.

Salaverry superseded Huanchaco as a port of entry. Salaverry's anchorage is in 5 to 7 fathoms ½ mile from shore, just to the leeward of the small point and the southern end of the bay; it is exposed to swell, but rarely to strong winds.

San José or Lambayeque is situated on a slight bay, 12 miles N. W. from Eten. Vessels anchor abreast of the town in about 5 fathoms, 1 mile or more from the shore. The holding ground not being good, they must lay with two anchors. Landing is at times very difficult owing to heavy swells. Notwithstanding its drawbacks Lambayeque has a considerable trade, being the port for the provinces of Trujillo and Jaen. Steamers call there on their way up and down the coast. Vessels load and discharge in rafts, which are made with logs of the cabbage palm lashed together, and carry a large lug-sail.

Mollendo became a port of entry in January, 1871, superseding that of Islay, from which it is about 4 or 5 miles distant. There is in Mollendo safe anchorage about ¼ mile from the shore in 15 to 18 fathoms. Vessels usually moor head to the swell. The place has two landing piers. A light is hoisted on the flagstaff during the night, visible at 3 miles.

Chilca has a good harbor and anchorage in 5 or 6 fathoms; the bay is small but forms a very fine port. Vessels enter, hauling close around Chilca point, and anchor in the middle of the bay with the point bearing N. W. or N. W. by W.

Chala near the point of this name has an exposed anchorage and bad landing. It is the nearest port to the city of Cuzco, and has some export trade.

Pisco at the mouth of a small river of the same name has a good harbor; the anchorage is sheltered by the Paraca point and islets lying off the entrance.

Huacho is a port on a small bay 28 miles north from Callao. The anchorage is in 5 fathoms within the rocks of Huacho point. The landing is good.

Casma is on a small bay bearing the same name, which is almost land-locked. There is secure anchorage in 7 or 8 fathoms. The town is 6 miles inland. The port is one of call for steamers running between Callao and Panamá. Its trade is inconsiderable.

Islay, formerly a port of entry, is in a small bight in the general trend of the coast. Vessels anchor in 10 to 12 fathoms close to the pier. The bight is somewhat exposed to rollers.

Pacasmayo's best anchorage is off the town bearing east, 4 or 5 cable-lengths off, in 5 or 6 fathoms. The landing is somewhat difficult at times because of the surf, but the natives manage to transport goods safely in their chaloupes. Pacasmayo is connected by railway with the chief interior towns, and with Callao by telegraph.

Tumbez, near the mouth of the small river Tumbez, is a depot for whalers. The harbor is a safe roadstead off the mouth of the river, where vessels anchor in 6 to 7 fathoms of water.

Patillos are three islets conspicuous for their whiteness. There is good anchorage in Patillos cove northward of the islets in 5 to 15 fathoms. Nitrate of soda and common salt are shipped here.

Lomas port, on the bay of that name, has a good anchorage in to 5 to 15 fathoms. The landing is pretty good.

Tambo de Mora has an anchorage in 4 or 5 fathoms, a mile from shore. The swells make landing perilous sometimes.

Cerro Azul is a port on a cove sheltered by the Fraile point, which is the

southern boundary of the bay. The anchorage is in 6 or 7 fathoms about one mile from the shore. The landing is sometimes difficult.

Cañete, a somewhat important town, is on a small stream some 6 miles from this port. Some of the largest sugar plantations of Perú are in the Cañete valley.

Ancón's anchorage is good, somewhat sheltered by a point to the southward, and some islets on the outside.

Chancay, 33 miles N. W. from Callao, on a small bend of the coast, has an anchorage which is unfit for large vessels.

Supé is a small port on the bay of the same name, with a good anchorage in 5 or 6 fathoms, or farther out in 7 or 8 fathoms, though not sheltered from the swell. Some large cargoes of iron have been landed here.

Samanco or Griambacho is a port on a fine bay, with a safe anchorage off the town in about 5 fathoms. Vessels enter at Callao.

Santa bay has a good anchorage in 4 or 5 fathoms near the village. Santa island, lying off the point of the bay, is valuable for its guano deposits.

The Guañapes are two islets off the coast about 5 miles, and about one mile from each other, with guano deposits. They are known as the N. and S. islands, the north being the larger one. The anchorage is safe in 20 fathoms, to the leeward of the islands, where ships lie to take in cargo.

Malabrigo has an anchorage in 4 or 5 fathoms, about ¾ of a mile off the village, somewhat sheltered by a projecting point. The landing is difficult and effected by means of caballitos, made of bunches of reeds fastened together, which are so light that they are borne on the top of the surf to the beach.

The Macabi are two islets off the coast, 6½ miles S. ½ W. from the Malabrigo. Vessels used to come to the islands for guano; the anchorage is quite safe in 8 to 20 fathoms.

Chérrepe's anchorage in the bay is 5 or 6 fathoms, but utterly exposed to the sea; the landing is difficult.

Pimental, situated between Lambayeque and Eten, is an open roadstead with anchorage off the town, and has a better landing place than either of the above.

Sechura is a port on the wide bay of the same name, near the mouth of the Piura river, 20 miles S. from Payta. There is good anchorage anywhere off the river in 5 to 15 fathoms.

Chipana is 6 miles north of the Loa river, which forms the boundary between Perú and Bolivia, and 6 miles south of Huanillas. This last named place contains an anchorage and guano deposit, 20 miles south from Pabellón de Pica. The anchorage is close to land in 8 to 12 fathoms. Though exposed to swells no accidents ever occurred until the earthquake and tidal wave of 1877.

The Pabellón de Pica is a notable hillock 1,040 feet high, and formed like a tent. A deep bay lies between it and a hill just north of it; there is good anchorage in 12 to 20 fathoms. The landing place is to the northward of the hill, and is sheltered by islets lying off it. The Pabellón is a guano port.

Pacocha is a bay with anchorage in 15 fathoms, and good landing in Huano cove.

Independencia, a harbor on a bay 12 miles long by 2⅔ to 4 miles in width, is sheltered by Isla de las Viejas. There is a safe passage on either side of the island into the bay, which has excellent anchorage.

Puerto Caballos is a roadstead with an indifferent anchorage in 7 to 10 fathoms. The bay is subject to a heavy swell, and the landing is difficult.

The Pescadores are 10 islets in the bay of this name, about 20 miles from Callao. The anchorage under Pescadores point is in 20 fathoms of water.

Loa is an anchorage at the mouth of the Loa river. Vessels anchor ½ mile from shore in about 10 fathoms.

Punta de Lobos (Lobos point), is an anchorage off the coast of Perú, 10 miles south from Pabellón de Pica. The anchorage is north of the point in 18 to 25 fathoms. It is a better place for loading guano than Huanillos, though not so extensive.

There are Lobos de Tierra and Lobos de Afuera. The S. W. of the chief island of the former group is exposed to the swell, but on the N. E. the anchorage is good. The best anchorage in the latter group is in the E. bay off the N. E. point of the south island. There are, however, other good places to anchor in.

The ports of entry of Chili are Valparaiso, Ancud, Valdivia, Talcahuano, Concepción or Tomé, Coquimbo, Constitución, and Caldera. Arica, a port of Perú, is under Chilian control for a

number of years. Chili also took possession of the Bolivian seacoast. Lota and Coronel are also ports of entry for ships in ballast. The republic possesses, besides, a number of other ports, some of which are also made use of for foreign commerce and the rest merely for coasting trade. A brief description of each port is given in continuation.

Valparaiso, the principal port of Chili, is one of the chief emporiums of commerce in South America. The bay is extensive and deep, affording secure anchorage for a large number of ships, except during northerly gales, to the violence of which it is exposed. But the holding ground being good and the pull on the anchor up-hill, accidents are not frequent. Large ships anchor at some distance, and handle cargo by means of lighters. The best sheltered position of the bay is that lying between the castle and Fort St. Antonio, in 10 fathoms of water. There is a lighthouse on Angeles point, at the southern extremity of the bay, which exhibits a fixed flashing light visible 20 miles. There are lines of steamboats of various nationalities running on the coast, which do most of the trade between Chili and Perú, and the other republics of the west coast. Many vessels visit this port seeking business, and a considerable number of charters are made. Other ships come for stores and for repairs. There are facilities for repairing, and dry docks to take up ships of 1,500 to 3,000 tons. The expense, though high, is moderate if it is compared with that in other South American ports. Since the establishment of the regular steamship service, the trade of the port has become greatly enlarged. Valparaiso is the port of Santiago, the capital of the republic, which gives it also an extensive local trade. It is the emporium for Bolivian produce, and provides Perú with flour, cereals, etc. Cereals also come from Valparaiso. The place has also a large shipping trade from its own neighborhood. It is provided with bonded warehouses.

San Cárlos de Ancud is a seaport on the island of Chiloé with a safe anchorage about one mile from the town.

On the east side of Chiloé is Castro, a good port for moderate sized vessels.

Valdivia or Corral is one of the most spacious and secure harbors on the coast. It is formed by the river Valdivia. The depth of water in the middle of the bay is 6 or 7 fathoms, and close in shore, 4 fathoms.

Concepción is a large bay, on which are the ports of Talcahuano, Penco, and Tomé.

Talcahuano stands on the S. W. side of the bay. Vessels anchor in 4 to 6 fathoms at 6 or 7 cable lengths from shore. The harbor affords the finest anchorage in the republic. It is an important station for American whalers and has some trade.

Penco and Tomé, on the eastern side of Concepción bay, share with Talcahuano an increasing trade. Tomé is the principal port for the shipment of grain.

The custom house is in Penco, which place has a very good anchorage in 5 to 7 fathoms, one mile from shore.

Coquimbo, La Serena, is a port near the mouth of the Chuapa river. The harbor is 6 or 7 miles south of the town, well protected and secure at all seasons. There is water for the largest vessels, 7 fathoms being found 200 yards from shore, and 3 fathoms close in shore. The usual anchorage for strangers is in 8 fathoms, with the extreme point of the N. W. shore N. W. half N., and the church of Coquimbo or La Serena N. E., and the houses about the landing place about S. W. The holding ground is good, though a swell occasionally rolls into the bay. The port is a favorite one. Vessels discharge into lighters, or alongside the wharves. There is a mole with 22 feet of water, where vessels can safely moor to load or discharge by steam cranes. A light has been erected on the point at the entrance of the bay. A railway connects Coquimbo with Las Cuadras and the mines in the interior.

Herradura de Coquimbo is a second-class port, vessels having to enter at Coquimbo. It is a small landlocked harbor to the southward of Coquimbo bay, from which it is separated by an isthmus one mile wide. The entrance is narrow but deep, and vessels of large size may enter at any time with a stiff breeze.

Constitución is situated one mile from the mouth of the river Maule. The bar has 9 feet of water on it in the dry season, which is from April to August. It is a secure harbor. Vessels of 12 feet draught can usually enter it. There is good anchorage outside the bar, in good weather, in 10 to 15 fathoms. There is a rock bearing N. W. 2 or 3 miles distant.

Caldera is a port on a fine bay. The harbor is safe, well sheltered, and with a good anchorage. It has two wharves, one for boats and lighters, and another for the use of vessels in loading or unloading alongside. Cars run on railways alongside the shipping. There is water enough at the pier for vessels drawing 18 feet. Vessels, however, usually discharge into lighters in the harbor.

Taltal is a minor port 70 miles north of Caldera, with one of the best harbors on the coast, easy of ingress and egress. Vessels enter and clear at Caldera.

Arica is the port of Tacna, formerly belonged to Perd, and is now held by Chili. It is an open roadstead, with the anchorage N.W. of the flagstaff in 8 or 10 fathoms. Vessels must guard against the heavy swells; the use of the stern kedge anchor is advisable. The rise of water is 6 feet. Arica is the outlet of Tacna, which is 35 miles in the interior. It will be remembered that it was almost entirely destroyed by a tidal wave in 1877. The annual arrivals at this port are about 200 vessels, with some 225,000 tons.

Mejillones, on the bay of that name, is a spacious and secure harbor with anchorage in 10 to 20 fathoms, and the flagstaff bearing S.W. There is a good wharf for launches. The port is free from danger, excepting on the east side, along a reef and some sunken rocks. Copper and nitrate are exported here.

Cobija, formerly belonging to Bolivia, was seized with the rest of this republic's sea-coast by Chili. Cobija has an open anchorage on the bay in 8 or 10 fathoms. There are several loading ports in the district, such as Paquigua, Duendes, Tocopilla, Punta Blanca, Huanilla, Gatico, Tamis, Hoxmos, and Gualaguala.

Paquigua has an anchorage in 10 to 20 fathoms; it is not a good one, but many vessels have loaded there from time to time.

Duendes is a port in Algodonales bay, whence ores from extensive smelting works are shipped. Large ships load at this place without trouble, except from occasional heavy swells. There is a good mole extending into a depth of 12 feet at low water.

Tocopilla, 2 miles farther south, is another smelting station on the same bay. The anchorage is open to the Pacific, and subject to a heavy swell.

Gatico, a small port situated 2 miles N.E. from Cobija, has anchorage in 15 to 20 fathoms, safe enough, though disturbed by the heavy swell. During light winds vessels cannot easily get off shore.

Peña Blanca, or Punta Blanca, has anchorage in the bay in 10 fathoms. It is a place for exporting ores. The best mark for this place is Alcalde point, 8 miles northward.

Huanilla stands upon a bay of the same name; it has mining and smelting establishments, and exports copper ore, etc. There is a small mole with anchorage off it in 15 to 20 fathoms. Vessels load from lighters.

Gualaguala has a mole for boats, and anchorage in 7 fathoms; there is no shelter from the west. Copper and guano are exported from this place.

Tongoy is a port on the bay of this name. There is anchorage in the bay 1 or 2 miles from shore in 5 to 10 fathoms.

Tortoralillo is a small port near Coquimbo. The village is on a bay, with anchorage in 8 to 10 fathoms.

Pajonal is a cove on the north coast of Chili, 12 miles north of Carrizal, with anchorage in 5 to 10 fathoms.

Guayacán, like the last two named, is in the district of Coquimbo.

Horcón has a good anchorage most of the year. In the winter season N.W. gales cause heavy swells.

North of Horcón 12 miles is the Papudo anchorage, which is safe for nine months of the year, but is exposed during the other three to westerly gales.

Antofagasta is a port that formerly belonged to Bolivia, from which large exports were made, especially of nitrate of soda. There is good anchorage, protected by a reef. The depth of water on the mooring ground varies from 15 to 40 fathoms; the bottom is very uneven, and mostly rocky. Vessels discharge and load with the aid of lighters. Small vessels may load to 18 feet within a creek reached through a narrow passage.

A north by east half east course from Java head will take a vessel into the Moreno bay. The loading facilities are good.

Lota has a good pier of 1,000 feet in length, alongside of which lie vessels of moderate size. There is always more or less swell in the bay, and in the winter the port is exposed to N.W. gales.

Coronel is an open bay, 9 miles from Lota, and like the latter is an outlet for extensive mines. The anchorage is off the village in deep water. It is not a safe place in winter. Vessels come here for coal, which is brought alongside in barges.

Junin, formerly a port of Perú, is the port of the Tarapacá Nitrate Company; it has good anchorage in 12 to 15 fathoms, one mile from the shore.

Lebú, at the entrance of the Lebú river into the Pacific, is an open roadstead, with anchorage in 10 fathoms of water half a mile from the shore. Considerable quantities of coal from a mine near the anchorage are taken alongside of vessels and shoveled on board.

Llico is a harbor in a bay situated about 120 miles south from Valparaiso. Ships cannot enter here from a foreign port. They must enter at Constitución and obtain leave to load with grain at Llico. The anchorage is somewhat exposed during gales in the winter.

Pisagua, a port situated on a rivulet of that name, is an open roadstead with the best anchorage in 8 fathoms. The landing is difficult. Vessels load from rafts, and there is often much delay.

Huasco is a small port on the Huasco river, near the place where the latter empties into the Pacific. This is also the port for Ballena, a considerable town in the interior. The harbor is in the bay at the mouth of the river, with good anchorage in 5 to 7 fathoms, three-fourths of a mile off shore; it is exposed to N.W. winds, which, however, rarely blow.

Carrizal's anchorage is near the shore, in 4 or 5 fathoms, sheltered by a reef, which gives it an advantage over Huasco for loading. The place grows in importance because of the large mines it is connected with by railway.

Iquique is in the formerly Peruvian province of Tarapacá. The roadstead is open to the N.W., and at full and change of the moon there is a heavy swell, which renders landing difficult, notwithstanding which vessels of all sizes load there.

Obispito, 15 miles north of Caldera, has an anchorage in the cove, and a bad landing exposed to the swell.

Obispo, 2 miles farther north, is a small place on a similar cove, with an indifferent anchorage.

Curarupe, 20 miles south from Constitución, has buoys laid about half a mile from the town, to which vessels moor while loading.

La Chimba, on the Bolivian coast, has a good anchorage in 7 fathoms, with a sandy bottom.

Chanaral is on an open bay. There is anchorage in deep water, sheltered from north and south winds. The shipment of cargo is difficult, except in smooth water. About 400 vessels, with 350,000 tons, visit this place annually, bringing coal, iron, and machinery, and carrying off copper.

Cobre el Cobre is a safe anchorage, though exposed to occasional N.W. winds. No fresh water can be obtained here.

Flamenco, in the province of Caldera, stands on a fine bay, well sheltered.

Montt, a port in the island of Chiloé, is the outlet for Llanquihue, a German settlement 15 miles distant. It is a deep and secure harbor, and a convenient place for steamers to stop at and take in supplies.

The island of Juan Fernandez has in Cumberland, on the northern side, a fair anchorage in 25 fathoms; the place has a mole, and exhibits a small light. Supplies can be obtained by ships.

The strait of Magellan is a channel between the southern extremity of America and Tierra del Fuego. These are about 300 miles from Cabo Virgen, its eastern or Atlantic entrance, to Cabo Pilar on the Pacific side. The breadth of the channel varies from 1 mile to 30 and even 40 miles. This passage is rarely used, because of continued gales, except by steamers. Along the shores there are several good anchorages. At the Atlantic entrance the tide rises 40 or 45 feet in the springs, while on the Pacific side it is only about 7 feet. Smith's sound and Sarmiento sound are passages that lead to the north from Magellan strait between the west coast of Patagonia and the outlying islands.

There is a mission on the northern side of Beagle channel, Tierra del Fuego, in the cove of a small peninsula north by east from the Murray narrows, or northern entrance to Ponsonby sound, which might be availed of as a place of refuge and relief to mariners shipwrecked in the vicinity of Cape Horn. Where a ship is abandoned to the westward of Cape Horn the most direct course for her boats is to go eastward of False Cape Horn, and through Ponsonby sound, using Packsaddle island, where it is believed the natives may be trusted, for a stopping place; but avoiding the natives of Ponsonby sound until near the north of it, as they are supposed to be hostile. Crews escaping when to the eastward of Cape Horn, had better go to the eastward of Navarin island, and westward through the Beagle channel, stopping, if necessary, at Banner cove in Picton island, or at the narrows of Beagle channel, where, on the south shore, there are friendly natives, the place being about 30 miles from the mission spoken of.

Pichidanque is a roadstead sheltered by Socos island. The Casualidad is the only danger to avoid in entering.

Puerto del Hambre, or Port Famine, is an anchorage in the strait of Magellan, about 25 miles N.E. from Cape Forward, the most southern point of the American continent. It is a snug, small cove with good anchorage. Steamers often anchor here for the night. The depth is very great till half way up the cove, when it gradually shoals to 10, 8, and 6 fathoms. There was formerly a Chilian settlement here, which was removed to Sandy point. The name was given because the first colony established there by the Argentine government all perished of hunger.

The island of Santo Domingo possesses several good ports, a number of which belong to the republic of Hayti on the western end, and the rest to the Dominican republic. Chief among those of the former government are Port-au-Prince, Cape Haytien, Jacmel, Gonaives, and Aux-Cayes; of minor importance are St. Marc, Mole or St. Nicholas, Miragoane, Jeremie, Anse d'Haynault, Pestal, Aquin, and Coraille. In the eastern republic the principal ports are Santo Domingo, Puerto Plata, and Samaná; to which must be added others which are worthy of notice, namely, Azua, Cabarete, Nizao, Cabras, Ochoa, Sanchez, Juan Estévan, Bani, and Barahona.

Port-au-Prince is at the bottom of the bay of Gonaives, and has a lighthouse on Lamentin point. It is a good harbor. Many steamers of different lines touch here and at some of the other free ports; the British Royal Mail line from Southampton, the French Compagnie Générale from St. Nazaire, the Atlas from New York, and others. About one-fourth of the merchants who had large establishments at this place abandoned it, after the events of September, 1883, when their stores were pillaged and burned. Half the town, where the best stores were, disappeared and only the ruins and ashes were left. A similar event took place in 1888.

Gonaives is at the head of the bay of this name, near the western extremity of the island. It has a good and secure anchorage for vessels of light draught, which can go into the inner land-locked harbor in 3¼ fathoms. The main anchorage is occasionally exposed to westerly winds. The place has a large trade in coffee, cotton, and logwood. An express can be sent from it to any part of the country, either by land or sea, within 24 hours.

The harbor of Cape Haytien is well protected by reefs, and has depth enough for the largest ships; but the entrance is difficult. None should attempt to enter after nightfall. The anchorage is about 1 mile from the town in 8 fathoms. There is a depth of 18 feet quite near the quays. Discharging and loading is done by lighters.

Jacmel is 28 miles S.W. from Port-au-Prince, at the head of a fine bay. The river Gauche with its many mouths empties into the bay west of the town. The harbor is two miles deep, open to the S.E., but protected by a coral reef which breaks the usually heavy swell. Hurricanes visit the bay from time to time, especially from August to October, with great violence, causing heavy loss; one in 1876 destroyed all the shipping in the port. The anchorage is in 4 to 5 fathoms, about half a mile from the wharf. Vessels of only 8 feet draught can reach the wharves. The ships of the Atlas Steamship Company touch here.

Aux-Cayes, on the southern coast, is a safe harbor in the summer season, but exposed to N.W. winds in winter. Close to the town there are 3 to 4 fathoms of water.

About 5 miles to the east of the harbor is Flamande bay, with a safe anchorage in 4 or 5 fathoms, where vessels generally lie in August, September, and October, which is the hurricane season.

St. Marc is on the bay of this name. Large vessels may approach the shore in 6 to 10 fathoms of water. It is the healthiest port in the island.

Mole, or St. Nicholas, at the N.W. end, near Cape St. Nicholas, is both capacious and safe. The anchorage is abreast of the town in 12 to 15 fathoms, where the harbor is about half a mile across. In the inner harbor the largest vessels may lie at anchor in safety.

Miragoane is frequented by vessels from the United States, to load with logwood.

Jeremie is an open, unprotected port at which vessels run great risks when heavy gales blow into it.

Anse d'Hainault is a port only used by agents of the large firms at Port-au-Prince, who are sent there to load vessels.

Pestal, in Cayemites bay on the west coast, is used for the export of woods.

Aquin is on the bay of the same name in the southern coast. The anchorage is 1 mile from the shore in 3½ to 4 fathoms. Vessels of light draught can go in much nearer. There are two entrances to the harbor, that between Point Morne Rouge and Diamante island being usually preferred.

Coraille is a small port with a poor harbor, and little trade.

Santo Domingo is at the mouth of the Ozama river. The harbor is unprotected; the inner part has only 11 feet of water. Vessels of larger draught anchor in 5 or 6 fathoms, a mile from shore. In winter the anchorage is safe, but in summer vessels must be at all times ready to put out to sea. This port has communication by steam through the British royal mail steamships, the French ships of the Générale Trans-Atlantique, and a German steamer from Havre. American steamers from New York three times a month call at Puerto Plata, Samaná, and Santo Domingo. Much of the port's trade is carried on through the Danish island of St. Thomas, but the chief business is done with the United States.

Puerto Plata is in a circular basin with safe anchorage in 4 or 5 fathoms, just within the entrance. Small vessels go farther in, and those drawing 10 feet, close to the town. It is an entrepôt for this part of the coast.

Azua town is 4 miles from the bay of Ochoa, the largest and safest on the southern coast, with three harbors—Caldera, Puerto Viejo, and Escondido. The last two have 13 or 14 feet of water inside, and an anchorage outside for larger vessels. Caldera, situated at the east side near Salinas point, has a protected anchorage in depths of 3 to 7 fathoms.

Cabarete is about 10 miles east of Puerto Plata. Vessels of 400 to 500 tons may enter and anchor in 3 or 4 fathoms about a quarter of a mile from shore. The holding ground is not good. A pilot must be employed.

Nizao is a small port on the Nizao river, 16 miles west from Santo Domingo. There is anchorage 2 miles off shore in 6 to 10 fathoms. Vessels are exposed here to southerly winds.

Cabras island, in Monte Christi bay on the north coast, is small and low, with a rocky cay to the southward. There is good anchorage in 6 or 7 fathoms between the cay and the island.

Sanchez, a new port in the bay of Samaná, has been opened to trade. It is the terminus of the Santiago and Samaná railway. A custom house and warehouse for goods to be forwarded to the interior have been built.

Samaná bay is formed by the peninsula of the same name. On the south of it are the ports of San Lorenzo and Sabana-la-mar; on the north, Clara bay and Santa Bárbara. There is fine anchorage in 4 or 5 fathoms.

Juan Estévan is exposed and insecure, though vessels sometimes load in the roadstead.

Bani, or Agua de la Estancia, is a small port about 40 miles s. w. of Santo Domingo city, with an open port and very limited trade.

Barahona is a port 76 miles west of the capital, with an inner and outer harbor, 12 feet in the inner and 24 in the outer. Both harbors are sheltered by reefs. A pilot is needed to enter and is usually taken at Santo Domingo city, and is useful merely to point out the channel. Vessels have sometimes taken in a portion of their cargo at some other port, and come to Barahona to complete it.

The island of Cuba has a number of fine ports; those open to foreign trade as ports of entry are: On the north, Habana, Matanzas, Cárdenas, Sagua la Grande, Caibarién, Nuevitas, San Juan de los Remedios, Gibara, and Baracoa; and on the south, Guantánamo or Cumberland bay, Santiago de Cuba, Manzanillo, Casilda (Trinidad), and Cienfuegos. There are several others at which foreign vessels are permitted to load with produce, often having been entered at one of the ports of entry.

The harbor of Habana is one of the finest in the world, large, safe and well protected, and can accomodate as many as 1,000 ships of any size. The entrance to it is readily recognized from the sea by the Morro castle and other fortifications overlooking the city. It lies N. w. by w. and s. E. by E. The channel for half a mile or so is about a cable's length across, but presently widens, opening into a broad triple-headed bay, irregularly shaped, 2¼ miles in extent, N. and s. w., and from half a mile to a mile in breadth, with a

mean depth of 5 fathoms. The harbor is simply buoyed, black buoys marking the edges of banks. The rise of the tide is 1½ to 2 feet. The port affords every facility for repairing and refitting vessels. The cost of all such work is expensive.

Opposite the city proper, across the bay, is the town of Regla, a dependency of the capital, with vast warehouses of stone and corrugated iron, in which the larger portion of the island's sugar crop is stored for exportation. The town is also a depot for the molasses trade, and for packing material for the sugar plantations.

Matanzas is connected with the capital by railways and telegraphic lines. The harbor is spacious and easy of access. It has been considerably injured by mud brought down by the San Juan river, but the bay is well sheltered from all the winds except the N. E., which causes heavy swells. As a commercial center Matanzas ranks after Habana, the chief exports being sugar and molasses. A large number of vessels of all sizes, both national and foreign, visit the port every year, and its coasting trade, especially with Habana, is also quite extensive.

Cárdenas, the town, is on a swampy shore of the bay bearing the same name, and has a considerable trade. The entrance to the bay is difficult, owing to shoals, but the bay is navigable for vessels drawing not more than 14 feet. Larger vessels lie 10 or 12 miles from the town in a good anchorage of 3 or 4 fathoms, where they load by means of lighters.

Sagua la Grande is a river port, the bar having 17 feet at low water. In the harbor, which is at the mouth of the river, there are 10 to 11½ feet at the wharves. It is well sheltered. The bottom is sandy and affords good anchorage. Vessels load at the wharves up to 10 feet and then drop away. There are several wharves and tug boats, and railway communication between the port and the harbor. Vessels when quarantined are sent to Carahatas, 1 mile alongshore away from the fleet.

Caibarién is 15 miles from Cayo Francés, and in the district of San Juan de los Remedios. It is a safe and well protected harbor with a depth at Cayo Francés of 30 feet, and at Caibarién of 9 feet. Vessels do not go up to the wharves. The tide rises 2 feet. The bottom is of sand and mud with good holding ground.

Nuevitas is near the entrance of the old Bahama channel. The harbor is safe and can shelter the largest ships. The channel being long and narrow calls for a pilot. The points of the entrance are 1 mile apart. Vessels calling merely to communicate may anchor off the fort about 1 mile within the entrance. The depth of water in the harbor below at low water is 10 to 15 feet; at the wharf, 10 feet; the rise of tide is 3 feet.

Gibara has good anchorage for vessels drawing 15 feet. It is the port for Holguin, a considerable town at some miles in the interior. Strangers should employ a pilot to enter.

Baracoa's entrance is only 1½ cable lengths wide. There is a bay inside 6 cables long by 3 cables wide with good anchorage in 5 or 6 fathoms. A heavy swell rolls in sometimes. Only small vessels enter the harbor.

Guantanámo will admit ships of the greatest draught. It is 11 miles long, north and south. The inner harbor has a narrow channel, and admits only vessels not exceeding 15 feet draught. This is one of the best harbors on the south coast of Cuba.

Santiago de Cuba has one of the finest harbors in the world. The entrance is narrow, but the depth of water is 28 feet at low tide. The harbor is about 6 miles long, and 2½ broad; landlocked and good anchorage. A pilot is necessary to enter. The short turns in the channel render the entry of vessels of great length very difficult. The port is one of the healthiest in Cuba.

Manzanillo, about 45 miles N. E. from Cape Cruz, has good anchorage near the town in 16 to 25 feet of water. Vessels of 20 feet draught may load here. The tide rises 2 feet. A chain of islets or cays forms a sheltered anchorage. In the middle of these islets are three good careening places for large vessels, well sheltered and with deep water. Manzanillo is the port for Bayamo.

Casilda is the outlet for the Trinidad district. It is about 2½ miles from, and connected by railway with the city. The harbor is protected from all winds except the south and southeast. The depth of water is 16 feet on the bar, 13 feet in the harbor, and 11 feet at the wharf. The anchorage is 2¾ to 4 fathoms, with a muddy bottom and good holding ground. Cargoes are handled in lighters.

Cienfuegos is on the bay of Jagua, which is landlocked. There are good facilities for shipping. Vessels of 12 to 13 feet draught can lie at the wharves; at the anchorage there are 4 or 5 fathoms of water. The channel to enter the

harbor is intricate and a pilot is needed. Tow-boats can be had to take vessels in. The port has a lighthouse. Steamers run from Batabanó to Santiago de Cuba, touching at Cienfugos and Casilda. Batabanó has railway communication with Habana, the capital of the island.

Mata is a small port on the north coast west of Punta de Maisi, suitable only for coasters; the depth near the entrance is 15 feet.

Cabañas has an entrance 1¼ miles wide, and affords sufficient depth for large vessels; it is sheltered from all winds.

Puerto Naranjo, at the eastern end, has a good anchorage well sheltered from all winds, and with deep water.

Mariél has a narrow entrance, but inside there is plenty of room, and anchorage in 5 fathoms. Vessels are allowed to load and unload at Mariél, but they must enter and clear at Habana.

Banes having a narrow entrance and crooked channel, a pilot is needed to enter it. The harbor inside is large and has abundant depth.

Nipe is a very spacious bay, 10 miles south of Banes. This bay could afford anchorage to all the navies of the world, but no import trade has yet sprung up to utilize its advantages.

Bahia Honda is a small, well protected harbor. There is water only for small vessels. The entrance being difficult, a pilot is needed.

Naguabo on the east has good anchorage in 3 to 4½ fathoms. The town stands about 2 miles inland on the Naguabo river, which empties into the harbor. The latter is exposed to S. W. winds.

Zaza is situated on a bay inside of some islets. It is the port for Santi Espiritu some 25 miles inland, with which it is connected by railway. There are 25 feet at the anchorage, and 9 feet at the wharves. Large ships load below Caney point, 3 miles from town.

Puerto Escondido is 12 miles east of Guantánamo, well sheltered, and good for large vessels, but its narrow entrance gives it the name of Hidden Harbor. Its trade is unimportant.

Jaruco is a small port near Habana, where vessels load with molasses.

Maslo is a convenient harbor for vessels of 14½ to 15 feet draught on the south side of the island. It is a port of shipment for Trinidad.

Batabanó is a steamboat harbor on the south coast of Cuba. Steamers of 8 and 10 feet draught run between it and Santiago de Cuba, touching at intermediate ports. The harbor is surrounded by shoal water.

Cazones is near Cay Piedras, on which there is a lighthouse. The bay is somewhat shallow.

The Spanish island of Porto Rico has several important ports, namely: San Juan, Arecibo, Aguadilla, Mayagüez, Ponce, Guayama, Humacao, Fajardo, and others, all of which are utilized for commerce.

San Juan is a large, deep harbor with 6½ fathoms at the entrance, and 4 fathoms inside, well lighted, buoyed and sheltered. It bears a strong resemblance to that of Habana in Cuba, and is but little inferior. Vessels coming to trade lie outside, their only expense then being boat-hire and pilotage. Most of the sugar of Porto Rico is shipped in hogsheads of 11 cwt. A ship usually carries 2 hogsheads to the register ton. The drainage to Europe is ordinarily 6 per cent; but if the sugar is new, 8 to 10 per cent.

Arecibo is a small harbor formed on the north side of a point of land from which a reef extends about three-quarters of a mile S. W. During May, June and July, vessels may anchor in 3½ to 4 fathoms, sheltered by that reef; at other seasons it will be safe for them, at least the larger ones, to anchor 2 miles off shore on the bank. In the winter northers strike the open roadstead; vessels must, therefore, be ready at all times to slip and run to sea.

Aguadilla is at the mouth of the Aguadilla river. There is anchorage at two or three cable lengths from the town of San Cárlos in 10 to 15 fathoms of water. The anchoring bank is narrow and steep, and the anchorage unsafe during the prevalence of N. W. winds.

Mayagüéz is on a bay of that name on the west coast of the island. The anchorage is well protected from northers, and adapted for large vessels; but there is a shoal extending about half a mile out from Point Algarrobo. The bay gradually decreases to 3 fathoms at the bottom of it, where the rivulet Mayagüéz empties. The rise of tide is 2 or 3 feet.

Ponce is a secure harbor except during a hurricane; it is protected from E. S. E., N., and N. E. winds, but open to S. and W. The anchorage is in 7 fathoms outside the bar and 3 fathoms in the inner harbor, with good holding ground. All cargo is handled in lighters, except lumber, which is rafted.

Guayama, though an open roadstead, is secure in ordinary winds; a reef 3 to 4 miles from shore protects the anchorage. The best place to anchor is in 4 fathoms about one mile from shore, with the guardhouse N. by E., and the west end of the reef S. by E.

Humacas is a small port near Naguabo on the eastern coast. It stands on the river of the same name, a short distance from its mouth. The port or anchorage is about 2 miles south from the river's mouth, with good depth for vessels of moderate size; the shelter, however, is insecure.

Fajardo, 8½ miles from San Juan head, has a landlocked safe harbor, and good holding ground. It has no bar, and the depth at low water is from 14 to 20 feet according to moorings; the depth at the wharf is 2½ feet; the rise of tide, 1½ feet.

Guanica is about 15 miles east from Cape Rojo, with a bold entrance between two headlands, one-eighth of a mile apart, and with plenty of water; the depth inside is 3½ to 4½ fathoms; and the inner harbor is 1½ miles long by one-fourth of a mile wide, one of the best on the south side.

Cape Rojo is six miles from Mayagüez; a small basin with depth only for vessels drawing 16 feet: it is a place for export merely.

Arroyo has a bank south of the bay. Vessels anchor about three-quarters of a mile from the shore. The harbor is quite open, and there is a swell from the S. E.

Manabo or Manibo is a small anchorage on the east coast of the island, which is quite exposed. The place has no trade.

The United States of America possess a very large number of ports, which would occupy too much space for even the briefest description. I shall therefore speak only of such as are likely to be visited by Spanish, or Hispano-American vessels, namely, New York, Boston, Philadelphia, Baltimore, Charleston, New Orleans, Mobile, Galveston, San Francisco, San Diego, and Portland, Oregon.

The port of New York ranks among the finest in the world, and is the largest maritime port in the United States. The bar at Sandy Hook has at the lowest tides 21 feet of water, and at the highest spring tides 29 feet. The lower bay affords a safe anchorage, triangular in form, with nine to twelve miles on each side. The north-east angle opens into the upper or New York bay, through the Narrows, there being a deep channel, about 1½ miles long by half a mile wide, between Long and Staten islands. The upper bay is an irregular oval, of about 8 by 5 miles, landlocked on all sides. It opens northward into the Hudson river, eastward through the East river into Long Island sound, and westward into Newark bay. The rivers around the city are quite deep, so that the heaviest vessels can haul to the wharves; the anchorage is good, and the channels are kept by the currents free from ice. The tides rise from five to six feet at the piers, which extend up each river four miles from the Battery, several of them being roofed over. There are several other places in the harbor, namely, Tompkinsville, on Staten Island, Jersey City, Hoboken, Brooklyn, Williamsburg, and Long Island City, which afford exceptional facilities for shipping. The East River channel at Hell Gate is now utilized by the largest class of vessels, to approach the city through Long Island sound. At Brooklyn, Jersey City, and New York grain is placed on board vessels by stationary or floating elevators from canal boats in any part of the harbor. Ships calling at Sandy Hook can communicate with their consignees by telephone. They can also have a communication with Europe by cable. Vessels passing in by Sandy Hook or City Island and displaying their signals will be at once reported.

The harbor of Boston is open to the sea, between Point Alderton in Nantasket and Point Shirley in Chelsea, distant nearly 4 miles from each other. These two points are the extremities of peninsulas which shelter the harbor from the ocean. There are many islands, between which are the main ship-channel, coming in by Boston light, and the Broad Side channel; these two being the chief entrances. The total surface of the harbor within points Alderton and Shirley is about 75 square miles. About one-half affords good anchorage for the largest ships; it is of easy access, free from sand, and very seldom obstructed by ice. Ships of 21 feet draught can safely ascend at the lowest tides; those of greater draught can come from or go to sea at flood tide, the rise and fall of which is from 8¼ to 10 feet; spring tides are 12 feet. The wharves and warehouses are on the largest scale, unsurpassed by any other place in the world. The north and east sides of the city are lined with wharves and docks, aggregating over 5 miles in length. Some of them are immense

structures. Long wharf, with its fine warehouses, extends 1,800 feet into the harbor. T wharf reaches from the centre nearly to the outer extremity of Long wharf on the north side, and is parallel to it, the two being connected by a short cross wharf. South of Long wharf is Center wharf, 1,879 feet long, with warehouses four stories high throughout its whole extent. The custom house is between these two wharves, on Commercial street. Further south is India wharf, 980 feet long, 246 to 280 feet wide, with lofty warehouses in the centre. To this wharf come the vessels from India and China. The most important wharves north of those mentioned are Commercial, Lewis, and the Eastern railroad wharves. The Commercial and Lewis have massive granite warehouses. Most of the wharves have water to float vessels of the greatest draught. At East Boston is accommodation for the largest ocean steamships, with ample dock and store room, a million-bushel elevator, the Shawmut elevator on Constitution wharf, and the Merchants' elevator on Eastern avenue wharf. There is also ample accommodation for foreign commerce at other places.

Philadelphia is a port of entry occupying a peninsula formed by the junction of the Delaware and Schuylkill rivers. These two rivers have sufficient depth of water to float ships of the greatest draught. The water-front is lined with numerous wharves, at which the depth varies from 10 to 22 feet at low tide, with a rise of 5 to 6 feet. The harbor proper is inside of Cape Henlopen, on the south side at the entrance of Delaware bay. The channel is broad and deep—7 fathoms at mean low water. The entrance is safe for ingress and egress by day or night and in all weathers. Massive sea-walls, known as the Delaware breakwater, have made the harbor one of the safest in the world. Vessels in distress taking refuge inside the Delaware breakwater have easy access to large dry-docks and ship-yards at Philadelphia, Chester, and Wilmington, and will lie in fresh water. Philadelphia offers great facilities to purchasers of coal. The Maritime Exchange distributes shipping news to all parts of the world.

Baltimore is situated at the most northerly navigable point of the Patapsco river, Chesapeake bay. The distance from the Atlantic is 160 miles. The bay for 142 miles affords depth for the largest ships. The channels of the rivers Craighill and Brewerton, 18 miles distant from the harbor, have been dredged 24 feet deep at mean low tide. The inner harbor and basins reach the centre of the city, accommodating vessels of light draught; vessels of the larger class haul to the wharves off Fell's point and Canton, at the eastern end of the city, and off Locust point on the west side. The line of water-front is 18 miles, but not all has been developed as yet. The Canton property has six miles of water-front, only partially brought into use. The Pennsylvania railway connected with the Northern Central company has at this place its terminal facilities, such as grain elevators, and is able to store about 1,300,000 bushels, and to accommodate at piers a number of large ships for loading and unloading cargo. Locust point has two miles of water-frontage in deep water. The place provides numerous wharves for the handling of large consignments of bituminous coal from the Cumberland mines in Maryland, by way of the Baltimore and Ohio railway. Upon one of these piers is a large government bonded warehouse. Baltimore, though farther inland than New York, has shorter railway communications with the interior than her sister cities, and has attained the second rank in handling cereals on the Atlantic coast. The Patapsco freezes over from Baltimore to its mouth when the winter is very severe, but this rarely happens. The city has provided ice-boats for keeping open the channel.

Charleston is upon a tongue of land between the rivers Ashley and Cooper, which uniting immediately below the town form a spacious harbor, and communicate with the Atlantic ocean 7 miles below. It is a well sheltered and safe harbor. The depth at low water on the bar is 12 feet; in the harbor, from 25 to 30 feet; at the wharves, 15 to 25 feet; the rise of tide, 6 feet. The bottom is of mud, with good holding ground.

Before speaking of New Orleans as a port, it will be well to make a few remarks on the Mississippi river, from the mouth of which about 100 miles on its left bank, lies the great mart of the south-western portion of the United States. The Mississippi, with its largest tributary, the Missouri, forms the largest river in the world. With its various tributaries it is one of the most extensive water systems known, and drains nearly one and a quarter million square miles, or about one-seventh of the North American continent. The length of the Mississippi proper, from its source in lat. 47 deg. N. (Itasca lake), to the gulf of Mexico, is 3,200 miles; its length, from the source of the Missouri to the gulf, is 4,360 miles. The Mississippi is very winding, and at places there

are bends of 30 miles, with perhaps only one mile across the neck. Natural obstructions being removed, there is no limit to the commercial possibilities of the Mississippi.

New Orleans is a port of entry in the State of Louisiana. The city is built around a bend of the Mississippi, whence its appellation of Crescent City. Its natural advantages for trade are unsurpassed by any other place. The Mississippi has about 15,000 miles of navigable waters; the country in communication with it is of unlimited fertility and resources, and embraces almost every variety of climate. The mouth of the river has three main or chief outlets, known as passes, namely, South-west pass, which extends as its name implies; Pass a l'Outre, extending toward the east; and South pass, extending southerly between the other two. At these points the banks begin to spread out in a fan-like shape, decreasing in depth, the broadest part of the fan being the shallowest, and forming the so-called crest of the bar. This crest, in its natural state at South pass, has a depth of 7½ feet, at Pass a l'Outre of 12 feet, and at s.w. pass of about 14 feet. About one-half the waters of the river reach the gulf through the last named pass, about one-eighth through South pass, and the rest through Pass a l'Outre. At South pass are the jetties. That outlet is about 700 feet wide to Land's End, with an average depth throughout the entire length of 45 feet. Captain Eads removed a shoal of 14½ feet at the head of the South pass and a portion of the crest of the bar, and thus gained the needed outlet. The jetties are 12,100 feet long and 1,000 feet apart, they extending across the bar into 40 feet of water, make a curve to the westward to conform with the littoral current of the gulf; the eastward jetty is continued beyond the other as a protection from easterly and southerly gales. The subordinate outlets of South pass were partially closed by similar works. Vessels bound to New Orleans can discharge their surplus ballast at Port Eads, South pass, without expense; they can lie close up to the shore, as the average rise of tide is only 15 inches. Vessels calling at South pass for orders, or to obtain information on freights, etc., will be in telegraphic communication with the whole world. They will also have the facility of tow-boats to change ports, going to Galveston, Mobile, Pensacola, Pascagoula, or New Orleans.

The port of Mobile is on the west bank of the Mobile river, just above the point where this stream enters the bay of the same name. It is 30 miles from the gulf of Mexico, and is a safe harbor; the depth at low water on the lower bar is 21 feet; on the upper bar 12 feet; at the wharves 12 feet; the tide usually rises 1½ feet; the bottom is of mud; the anchorage is good.

Galveston, in the State of Texas, is situated on an island in Galveston bay. It is one of the best on the Texas coast; the depth at low water on the bar is from 8 to 10 feet; in the harbor, from 10 to 18 feet; at the wharves, from 12 to 14 feet; the rise of tide, from 2 to 4 feet; the bottom is hard sand; the anchorage is good, though northers may occur from September to March. Vessels drawing 12 feet anchor outside the bar, where there is good holding ground in 6 fathoms and perfect safety; cargoes are loaded and discharged in lighters.

San Francisco, the chief port of the United States on the Pacific coast, has a landlocked harbor so large and deep that the combined navies of Europe and America might manœuver in it at the same time. The depth of water at low water on the bar is 6 fathoms; in the harbor, 7 to 10 fathoms, at the wharves, 2 to 3 fathoms; the rise of tide is 5 feet; the bottom is of mud; and the anchorage good.

The harbor of San Diego is one of the best on the Pacific coast, and perfectly safe and landlocked. The depth at low water on the bar is 28 feet; in the harbor, from 5 to 10 fathoms; at the wharves, 22 feet; the rise of tide is from 4 to 8 feet; the bottom is of hard sand, without rock.

The roadsteads of Santa Bárbara and San Buenaventura belong to the San Diego district.

Portland, in Oregon, is a port of entry on the Willamette river, at the head of ship navigation, 12 miles from its mouth. It is a safe and well protected harbor, with a depth on the bar at low water of 17 feet at present, though this is being increased. The depth of water at the wharves is 30 feet, the rise of tide, 1 to 2 feet. The bottom is soft, of conglomerate and silt. The Willamette river has been frozen over twice in 20 years.

In the Bermudas group there are some excellent harbors, those of St. George and Castle being the best.

St. George has a breakwater which was constructed at great expense on the adjacent island of Ireland.

Castle is mainly used for quarantine. Vessels of 20 feet, and at high tide 23 feet, draught can enter St. George. It is a well sheltered harbor, and possesses a marine slip where the largest vessels that can enter the harbor may haul up.

Grassy bay and Murray's anchorage are tolerably secure harbors for large ships.

Hamilton, the capital of the islands, has also a safe harbor with sufficient depth for ships of 1,000 tons, and every facility for loading and unloading cargoes alongside the wharves. An important business in Bermuda is the repair of vessels which put into the island in distress.

The Bahamas have eleven ports open to foreign trade, namely: Nassau, Abaco, Eleuthera, Harbor, Exuma, Rum cay, Long Island, Inagua, Ragged island, and Bimini.

Nassau, a port of the island of New Providence, has its entrance between Hog island and Silver cay. It is obstructed by a bar, which ships of over 15 or 16 feet draught cannot pass. Vessels merely wishing to communicate may use the outer anchorage off the north side of Hog island, which is in 7 or 8 fathoms, and is sheltered from south and east winds.

Eleuthera, N. E. from New Providence, has several ports at which small vessels take in fruit, viz: Cove, Tarpune bay, and Governor's harbor. It is not safe to load above 12 feet at any of those places. The vessel lies at anchor, and fruit is brought to her in boats, July being the best month for shipments.

At Fortune island vessels anchor off the leeside, close in, and load with salt, but should put to sea as soon as there are indications of a storm.

Harbor island has its port at Dunmore town, which admits small craft.

Matthew is a port on the south of the Great Inagua, about 5 miles from the extreme south point of the island. It is 40 miles N. E. from the east end of Cuba. The harbor is secure in easterly or trade winds, and can be reached without a pilot. There is good holding ground in from 3 to 20 fathoms, 3 or 4 cables' length from shore. Vessels must, however, be ready for departure if the weather threatens to change.

The Caribbean Sea, inclosing the West India islands, is a part of the Atlantic ocean, extending 1,800 miles east and west, and about 1,000 north and south, and connecting with the gulf of Mexico by the passage between Yucatan and Cuba. It is entered from the Atlantic by numerous channels separating the West India islands. On the south and west are the gulfs of Honduras and Mosquito. Great Britain possesses a large number of colonies in the islands of the Caribbean sea, and in the gulf of Paria, besides a considerable portion of the country known as Guiana on the continent of South America. British Honduras has several ports, the most important one being Belize.

Belize, at the mouth of the Belize river, is a sheltered harbor, with about 4 to 6 fathoms a short distance from the shore. It is safe for a strange vessel before entering to take a pilot, either at Half Moon cay or English cay. The whole trade of British Honduras passes through this port. The Belize river is navigable 200 miles for boats.

The island of Jamaica is much indented, especially at the eastern end, forming some 50 or 60 bays and creeks, and about 30 harbors. The chief ports are: Kingston, Morant, Port Royal, Black river, and Savana-la-Mar, all on the south coast; Montego bay, Falmouth, St. Ann, Port Maria, and Annoto bay, and Port Antonio on the north coast. All these ports are open to trade. The Turk's and Caicos islands, Navassa, and the Grand and Little Cayman dependencies of Jamaica, also have ports worthy of mention.

Port Royal contains the naval arsenal and hospital, and is the station for British West India squadrons. Vessels go from Port Royal to Kingston by a channel which varies from 6 to 9 fathoms in depth, and in the narrowest part is little more than a cable's length in width, the channel throughout to the anchorage off Kingston being well buoyed and staked.

Kingston is a safe, well protected and landlocked basin, extending inland 2 or 3 miles from Port Royal, and formed by the Palisades. The depth is from 4 to 7 fathoms, and deepens to 9 fathoms above the wharves. Ships of the largest size lie at the wharves. Kingston is an entrepôt for steamers, and is in telegraphic communication with the whole commercial world. There is a lighthouse on Fort Augusta.

Old harbor, 20 miles S. W. from Kingston, has a safe anchorage for vessels of moderate draught.

West harbor is an extensive bight in the western part of the bay, and very shallow.

Long's wharf, about 2 miles S. W. of Old harbor wharves, has 18 feet of water.

Morant cays are a group of 4 small islets, lying 33 miles S. S. E. ½ E. from Morant point lighthouse. There is good anchorage under the lee of the cays. The best shelter is off the S. W. cay, bearing S. to S. by W. in 5 or 6 fathoms. There is generally a strong current to the westward. Tides rise and fall about 2 feet. The distance from Morant Point is 32 miles S. by E. ¾ E. The port is small, but secure.

Black river has an anchorage in 13 feet of water in front of the town. Large vessels lie farther out in 7 to 8 fathoms, with the town N. E. by N. The river is navigable for boats 25 miles above the town.

Savana-la-Mar has its anchorage inside of reefs in 15 to 16 feet of water.

Milk river is an open roadstead used only by small vessels, the anchorage being in 2½ fathoms, 1½ to 2 miles from land. Vessels transact business at Port Royal before going to Milk river.

Falmouth is a deep, well protected harbor, but has a bar at the end.

St. Ann's bay is an anchorage for moderate-sized vessels.

Montego is on the small bay of Montego, with an unsafe anchorage during the season of northers, from November to March; at other seasons it is secure.

Port Maria is a small harbor with anchorage in 4 or 5 fathoms, exposed to northerly gales. The holding ground is good, and the undertow prevents much strain on the cables.

Annatto bay is a narrow roadstead, partially protected by Schoolmaster shoal. The anchorage is exposed to northers, but vessels can sail from it with either a land or sea breeze. Strange vessels should not attempt to enter without a pilot.

Port Antonio is divided into two harbors by a narrow peninsula, on which is the town of Tichfield. The eastern harbor is about half a mile in diameter, but contracted by a shoal; it has a good anchorage in 7 fathoms. The western harbor has anchorage in 6 or 7 fathoms. Both have good holding grounds, but are subject to heavy swells. The eastern harbor is the better one to sail from.

Calliagua has a secure anchorage, but no strange vessel should try to enter it without a pilot. This port was formerly much visited by merchantmen, but at present most of its exports pass through Kingston.

The Turk's islands consist of Grand Turk, Salt Cay, Sand Cay, and East Cay. The town is Grand Turk on the first named of the group. There is no regular harbor, vessels anchoring off the town half a mile off shore. It has 16 feet of water.

Salt Cay has a similar anchorage.

Turk's Islands passage is formed by the Grand Turk, Salt Cay, and other small cays and reefs on the east, and the Caicos islands and bank on the west, and runs in a S. S. W. direction, the distance from the lighthouse on Grand Turk to Sand Cay being about 22 miles.

The Caicos group consists of four islands, the anchorage off them being unsafe.

Navassa lies between Jamaica and Hayti. The anchorage is in 16 fathoms near the flagstaff, and is on the S. W. side, protected from all winds except the west, which seldom blow violently. There are stern moorings for 3 vessels of 1,000 to 1,200 tons. No member of a ship's crew is permitted to go on shore. Giving or selling spirituous liquors to public employés is strictly forbidden.

The largest of the Cayman islands has harbors of considerable size and depth, the entrances to which are, however, too narrow and intricate to admit any but very small vessels. One of the harbors is the Great sound on the north, which measures six miles across. The only anchorage for large vessels at Grand Cayman is under the west end, about 1¼ miles northward of the S. W. point.

The Leeward group has a number of ports, most of which are utilized for trade with foreign nations as well as with the mother country. The principal ones are St. John's, English harbor, Falmouth, Parham, and Willoughby bay in Antigua, Plymouth in Montserratt, Charlestown in Nevis, Basseterre in St. Kitts, Anguilla, Road harbor in Tortola, the most important island of the Virgin group, and Rousseau and Rupert's bay in Dominica.

St. John's is the chief shipping port of the island of Antigua. The harbor is well protected from winds, but very shallow, small, and inconvenient. Vessels drawing 12 feet cannot approach the wharves nearer than half a mile. There is good anchorage north of the bay, where vessels of 14 feet draught take cargo in the roads. Vessels which come to trade or seek freight, may stay at St. John's 48 hours without incurring other expense than pilotage, which is compulsory.

At English harbor are the government dockyards and other facilities for repairing vessels.

Falmouth is a small harbor with sufficient water for a few large vessels.

Parham is a sm all harbor with 18 feet of water.

Willoughby has deep water but is difficult of access.

The only good anchoring ground off the island of Barbuda is on its west side, off Martello tower, where there is an open roadstead; the landing is rather difficult.

Montserratt's port is Plymouth.

At Redonda, a barren island, 9 miles N. of Montserratt, vessels lie to leeward made fast to buoys, and the guano is brought alongside, 100 tons daily in fair weather.

Charlestown, in the island of Nevis, is an anchorage in 5 or 6 fathoms, about half a mile off the town of that name.

Basseterre is an open roadstead in 8 or 10 fathoms about half a mile from the wharf. It stands at the mouth of a river opening into the bay, known as Basse Terre road.

Anguilla, the principal town of the island of that name, has no harbor.

At Crocus bay there is an anchorage in 6 or 8 fathoms; the landing is difficult on account of breakers.

Road harbor, the chief anchorage of Tortola is exposed to swells, but considered safe; a pilot is necessary. Tortola is the most important of the Virgin group, but unhealthy.

The harbors of Rousseau and Prince Rupert's bay are in the island of Dominica. Rupert's bay has water for the largest ships, and its safety has made it a favorite resort for American whalers.

Portsmouth at the head of the bay, and recently opened to trade, will surely become a flourishing port.

Rousseau, near Charlottetown, the capital of the island, is the chief roadstead, and vessels anchor in 6 to 8 fathoms of water.

The island of Barbados, one of the most important of the British West India islands, has only one port, known as Carlisle bay.

In the middle part of the bay, in a northerly and southerly direction, between Needham's point buoy and Pelican reef, the latter having a large lazaretto, there is a depth of 20 to 30 fathoms. To leeward, in the lower part of the bay, is good anchorage in 6 or 8 fathoms. To approach the anchorage, advantage must be taken of a red beacon buoy, with staff and vane, placed on the shoal which extends to the north from Needham's point. It lies in 5 fathoms. In nearing the buoy it must be kept in line with Pelican isle, and may be passed quite near, hauling up N. N. E. till the water deepens to 10 fathoms, or when the signal post on the hill becomes visible off Ordnance wharf, when the shoal will be cleared. Since the submarine cable was connected at this island, it has been frequented by vessels in search of freight or calling for orders. There is telegraphic communication with the neighboring islands as well as with Europe and the United States.

Carlisle bay is an open roadstead on the leeward side of the islands with good anchorage in 5 fathoms, much exposed to the wind from the S. and S. W. Vessels can run in there safely. A pilot may be had, if required, off Needham's point for $4 to $6. There is an inner harbor or careenage protected by the mole head.

The island of Trinidad in the gulf of Paria has several ports, the chief one being the Port of Spain; and the others, Macaripe and San Fernando.

Port of Spain is on the west side of the island. The harbor consists of a bay with a secure anchorage. Vessels of 14 feet draught lie within three-quarters of a mile of the jetty, and those of 20 feet about double that distance. Vessels can be hauled down and steam machinery repaired. No unlicensed sailors are permitted to work on board the ships.

The second town and port of entry is San Fernando, which is one of the finest harbors in the West Indies. The anchorage is safe.

Macaripe, on the north coast, about 5 miles east of the Dragon's mouth, is suitable only for small craft.

The Windward group of British West India islands contains a number of ports available for foreign trade, namely Souffriere, Gros islet, Kingston at St. Vincent, St. George, and several others situated on the coast of the island of Tobago.

Souffriere and Gros islet are good anchorages, the former at the s. w. and the latter at the N. E. end of St. Lucia; both are more or less exposed to certain winds. Vessels enter and clear and pay their dues at Castries.

Kingston is on a bay on the s. w. with anchorage in 15 to 20 fathoms, one-fourth of a mile from the town; it is open to the s. w. and w. winds.

St. George in Granada is on a spacious bay on the south side with a commodious harbor; it is nearly landlocked, sheltered on all quarters, and will admit the largest vessels. Ships can refit here.

On the windward side of Tobago are several fine harbors, and on the northward is Man-of-war bay, capacious, secure, and accessible for the largest ships.

Courland bay is on the north side, 6 miles from the fort.

Sandy point and King's bay are also adapted for large ships.

Tyrrell's, Bloody, Mangrove, Englishman's, Castoras, and Halifax bays also have good anchorage for small vessels. At Halifax bay a pilot is needed.

Guiana is a large extent of country situated on the north-eastern part of South America, between Venezuela and Brazil; a portion of it belongs to Great Britain, another to France, and a third to Holland. The chief ports are Georgetown, New Amsterdam, Cayenne, Paramaribo, and Coppename.

Georgetown, the chief port of the British colony, stands at the mouth of the Demerara river, which is navigable for vessels of 12 feet draught for a distance of 65 to 70 miles. It is provided with a white light visible at 10 miles. There is a very substantial dry-dock, into which vessels not exceeding 230 feet in length can be easily admitted. The depth on the sills is 11 feet at high water of spring tides, and 9 feet at high water of neaps.

New Amsterdam, a seaport of Berbice stands 3 miles from the mouth of the river Berbice. The coast may be approached without danger by paying proper attention to the lead. There is a bar across the entrance to the Berbice, which cannot be crossed by large vessels, except at high water spring tides. There are 18 feet of water on the bar at high water, and 6 feet at low water. The rise and fall of water at springs is 12 feet; at neaps 9 feet. The depth of water at the town of New Amsterdam is 11½ feet, and vessels can either come alongside the wharves or lie off in the stream. The depth increases as the river is ascended, and there is no obstruction. Large vessels can load with timber 180 miles up. The holding ground in the Berbice is not good. Ships should moor with two anchors. Swivels are not used to avoid collisions.

Cayenne, in the French dependency, is a port at the N.W. end of the island of Cayenne, at the mouth of the Oyagne river. The harbor is but an open roadstead, exposed to northerly winds, and owing to rocks and sand-banks, difficult of access without a pilot. There are 14 to 15 feet of water at the river's mouth. Vessels of 14 feet draught can usually approach the quays, while those of greater draught must anchor 6 miles away. Vessels bound to Cayenne anchor off Malingre island, in 3½ to 5 fathoms. The rise of tide is 11 feet at springs, and 6 at neaps.

Paramaribo is on the west bank of the Surinam river, 11 miles from its mouth. Vessels drawing 14 feet can go up to Paramaribo. The anchorage off the town is in 4 to 5 fathoms.

Coppename is a river port, having a bar with 12 feet of water on it at the entrance, and inside the water shoals to 10 feet. Vessels of light draught load with timber at Coppename.

The French West Indies possess important ports, the chief of which are Pointe-à-Pitre, Moule, Basse Terre, St. Pierre, Trinity bay, Cul-de-Sac-Marin, Grande et Petit Anse d'Arlet, Petit Anse du Diamant, Havre du Robert, Fort de France, and others.

The island of Guadeloupe consists in reality of two islands, kept apart by a narrow channel about 5 miles long, and 80 to 100 yards wide, with sufficient water to float vessels of 50 or 60 tons. The channel, called La Rivière Salle, or Salt river, runs N. and S., and has a large bay at each extremity; on the north the Grande Cul-de-Sac, and on the south the Petit Cul-de-Sac. Basse Terre, the chief town on Guadeloupe proper, is on the S.W. coast, and has an open roadstead, with anchorage in 15 to 20 fathoms quite near the shore. The harbor has a light visible at 2 miles.

The chief town on Grand Terre, the other division, is Pointe-à-Pitre, situated at the south entrance of the Rivière Salle, which has a fine harbor, with anchorage in 3 to 5 fathoms. Small vessels can haul to the wharves. In this harbor is Port le Moule, capable of holding 15 vessels of about 300 tons each. Those drawing over 12½ feet cannot enter; a pilot is necessary. The months of January, February, and March are unsafe for lying at this port. The light at le Moule can be seen at 5 miles.

To the N.E. is Port Louis, of about the same capacity as le Moule.

Marie Galante, Les Saintes, Désirade, and the northern part of St. Martin belong to Guadeloupe.

Marie Galante has two harbors, Grand Bourg, the principal one, being on the S.W. side, and fit only for vessels of 14 or 15 feet draught. The other, St. Louis bay, has a good anchorage in 6 or 7 fathoms.

Les Saintes are two rocky islets without a harbor. Désirade has no harbor.

St. Martin is an island, the northern part of which belongs to France, and the south to Holland; it has bays and lagoons, some of which afford good anchorage. Marigot bay is the chief port on the north. Phillipsburg is on the south side.

Gustaf harbor, on the N.W. of the little island of St. Bartholemew, belonging to France, has a safe anchorage in 17 to 18 feet of water with the prevailing trade wind, but exposed in the hurricane season. Vessels of large draught may anchor on the S.W. side of the island.

St. Pierre, in Martinique, has an anchorage in an open roadstead, where vessels anchor in 3 to 7 fathoms near the town. Small vessels moor with the stern to the shore. Cargoes are conveyed in lighters. Although on the lee side of the island, there is a heavy swell at times.

Trinity bay, situated 12 miles east of St. Pierre, is a safe anchorage in ordinary weather. Vessels come close to the town, in 5 to 8 fathoms.

Cul-de-Sac-Marin, an islet on the south side of the island, is suitable for vessels drawing 12 feet. Large vessels anchor farther out, in 12 fathoms. A pilot is necessary to enter.

Grande and Petit Anse d'Arlet are two small bays on the S.W. of the island, affording good anchorage.

Petit Anse du Diamant, a small bay near the above, has good anchorage for vessels of moderate size.

Havre du Robert is a commodious bay on the east side of the island, sheltered by reefs. There is good anchorage in 7 to 9 fathoms. A pilot should be employed.

Fort de France, which has also borne the names of Port Royal and Fort Royal, is on the west side, with a very safe harbor and anchorage. There is a coal wharf with 22 feet of water alongside, and also an excellent dry-dock, capable of accommodating the largest ships.

The Danish possessions in the West Indies consist of the islands of St. Croix and St. Thomas, to which may be added the little isle of St. John. The first named has the ports of Christiansted and Fredrichsted; St. Thomas has the harbor bearing the same name, on which is situated the town of Charlotte Amalia.

Christiansted, on the north coast of St. Croix, has a small harbor admitting vessels of not more than 19 feet draught, and well sheltered. Men-of-war usually lie 5 miles S.W. from Christiansted in 4 or 5 fathoms.

Fredrichsted is on a bay at the west end of the island, with a good anchorage in 6 to 7 fathoms abreast of the town; but the place being an open roadstead is unsafe during the hurricane season. Two elevated lights at the public wharf are visible several miles at sea. A pilot is not necessary to reach an anchorage suited to the vessel's draught, but one may be obtained for one dollar per foot of draught.

St. Thomas harbor is nearly landlocked, and safe from all winds; it has a narrow entrance, but no bar; the depth varies from 8 feet to 6 or 7 fathoms, with the bottom of mud and sand. Vessels with cargoes of coal discharge at a wharf having from 18 to 25 feet of water. There is a floating dock 250 feet in length and 70 feet wide, and also a steam slip which can take up a ship of 1,200 tons. The British royal mail steamship line formerly had its headquarters at St. Thomas; other lines followed its example; but the former moved to Barbadoes in 1885.

St. John has several anchorages, but no good harbor. Most of its produce is carried in droghers to St. Croix or St. Thomas for shipment.

The West India islands belonging to Holland have several good ports.

Santa Ana, the chief harbor of Curacoa, is 2⅔ miles long, with a depth of 8 to 10 fathoms in the middle. Vessels of considerable size haul to the wharves. It is practically a free port.

On the east side is Willemstadt, a very neat town and the capital of the island.

On the west side is Overzidje.

St. Burhaven has a narrow entrance, but is large and safe.

In the island of Gonaive vessels anchor on the west side, and load from launches. The anchorage is usually safe.

Sabá island has two anchorage grounds; the southern one is fit only for small crafts; the other, near Torrens point on the west side, is better and more sheltered.

Orangetown, on the west side of St. Eustace, is the only port of this island. It has an anchorage of 10 to 12 fathoms. The landing is difficult; the climate is healthy, but the place is subject to hurricanes and earthquakes.

I give in continuation a list of the lights existing, or proposed to be established, on the coasts of the several countries embraced in this manual, prefacing the same with a few remarks on the general system of lighthouses. A lighthouse, as the reader is aware, is a structure showing from its top in the night time a light to serve as a guide or warning to mariners. It is necessarily placed on headlands, isolated rocks, sand dunes, pier heads, or other elevated spots in order that the light may be seen from a distance. The materials for their construction are stone, brick and iron, the first being used by the most noted ones. Cast-iron has been found convenient, and its use is being adopted in many places. Lighthouses on wrought-iron piles are also constructed, but such foundations are unsuitable in water where much ice is formed; they are good, however, in bays and sounds, and are superseding the former light-vessels. The structures are usually square, hexagonal, or octagonal; some being provided with a habitation for the keeper, but most of them have only a staircase, cleaning and watch rooms, and the receptacle for the oil-butts. The lantern containing the illuminating apparatus is placed on a parapet wall surmounting the tower, at a height of several feet. It is a brass or iron frame-work, which varies from 6 feet in diameter and 4 feet in height, to 12 feet in diameter and 9 feet in height, polygon-shaped, and with as many sides as may be desired. It is provided with means to prevent the condensation of moisture, with a ventilator for the escape of the heated air, and

with registers enabling the keeper to regulate the supply of fresh air. The materials which have been employed in illuminating are wood and coal, candles, oil, gas, and electricity. Neither gas nor the electric light are considered advantageous. Petroleum produces too much carbon, which passes away unconsumed as smoke, and besmears the apparatus and glass. It is in fact a dangerous fluid, but much used in Europe. The illuminating apparatus is either the catoptric, with metallic reflectors, or the dioptric with refracting lenses. The latter is known as Fresnel's method. Fresnel adopted for his first order of apparatus the Carcel lamp, which supplies the burner with four times the oil it will consume; for the second order is used a lamp with three concentric wicks; for the third and fourth, lamps with two concentric wicks; and for the fifth and sixth, ordinary Argand burners. The annual consumption of oil is for the first order nearly 700 gallons; for the second, under 500; for the third, 220; for the fourth, 150 to 200; for the fifth, 70; and for the sixth, about 60 gallons. In the first order octagonal revolving lens the light thrown to the horizon by one of the octagonal faces and its reflectors is from 3,000 to 4,000 times the light of a single Carcel burner, or eight times as much as is thrown to the horizon by the best reflectors. The Fresnel method has superseded the reflector system. Reflectors are used now only as range lights, or on light-vessels, or in some very cheap lighthouses having no lens. Even by light-vessels the Fresnel lenses have been successfully used.

Attention is called to the following contractions and their significations:

F.—Fixed. Continuously steady and visible.

Fl.—Flashing. Flashes or groups of flashes; a flash means a light instantaneously appearing and disappearing.

F. and Fl.—Fixed and flashing. The flash may occur during the continuance of the fixed light, which it intensifies, or the latter may show for an interval, and then be eclipsed for an interval, during which the flashes will appear.

Rev.—Revolving. The light appears and gradually increases to its full intensity, and then gradually decreases until it disappears, though at short distances, and during clear weather, a faint, continuous light may be observed.

Int.—Intermittent. Suddenly appearing in view, remaining steady and visible for a certain time, and then as suddenly disappearing for a time. This term includes occulting.

Alt.—Alternating. Red and white light alternating at equal intervals, without any intervening eclipse.

Illuminating apparatus.—C. Catoptric. D.—Dioptric.

Ord.—Order or class of apparatus, number from the first to the sixth order.

The bearings, where given, to be understood as from the ship, and not from the light.

Measurement, in English feet, yards, and nautical miles.

The distance the lights are visible is calculated from a height of 15 feet above the sea-level at high water. Lights are to be considered white unless otherwise stated.

Different countries have provided a system of lights on their coasts, the order of each apparatus being in accordance with the requirements of locality. In continuation will be found a list of the ports of each nation, or dependency, at which such lights exist, or where it was proposed in 1886 to erect them.

Mexico.—Vera Cruz; on the N. W. angle of fortress San Juan de Ulúa, Rev. every 45 sec., of great power and brilliancy, 80 feet above the sea level, and visible, in clear weather, 15 miles at sea; one on San Francisco convent, F. and Fl., every min., D. 4th. ord. Another, half mile from fort San Francisco, F., electric.

At Tampico, Fl. every half min., 3 flashes of 5 seconds each; eclipse, 15 sec., D. 2d. ord.

At Laguna de Términos, Rev. every half min., D. 2d ord.

At Progreso the light is visible at 6 miles from the top of the custom house, S. E. from the anchorage, 4 to 4½ miles distant.

The republic has also lights in Coatzacoalcos river on the old lookout tower.

At Frontera de Tabasco, Campeche, Sisal, on the castle; Acapulco; on the summit of Grifo or Roqueta island; Mazatlan, on Creston island; La Paz, on the wharf; Man-of-war cove in the N. W. side of Magadelena bay; and on Cape Haro, approaching Guaimas.

Central America. Costa Rica at Port Limón has a F. D. light, 64 feet above the sea level, visible from 6 to 8 miles, standing on a cay immediately in front of the port. She also has one at Puntarenas in the gulf of Nicoya.

Nicaragua established a light at Corinto on Cardón island, which went into operation on Aug. 1st, 1886; this light is visible at 18 miles. She has also a light at San Juan del Sur upon a point on the south side of the entrance to the port.

Honduras has lights at Trujillo, Puerto Caballos, and on several of the Bay islands, and British Honduras keeps one on English cay, one on Fort George in Belize, and others on several cays.

Salvador maintains lights at La Union, on the end of the wharf; at La Libertad, on the west angle of the custom house, visible at 6 miles, obscured by a building between the bearings N. by W. and N. N. W.; and at Acajutla, on the extreme of the iron mole, F. and visible at 7 miles.

Guatemala has one at San José on the custom house.

Colombia keeps the following lights: at Colón, Cartagena, Sabanilla (2 lights), Sta Marta, on the Morro island, not reliable; Rio de Hacha, on the Atlantic side; and at Panamá on the Pacific side. In the last named place, one is kept at the end of the railroad wharf, and another on the custom house. A new light house situated on Galerasamba between Cartagena and Sabanilla, went into operation on May 1st, 1888.

Venezuela.—At La Guaira there are lights on the signal fort, F. of 1st ord.; at Maracaibo, Oruba island, Puerto Cabello, Los Roques, Cumaná, Cumarebo bay, Vela de Coro, Carupano; and in the mouth of the Orinoco river a light vessel at the Boca Grande.

Ecuador.—In Guayaquil there are lights on the summit of Santa Clara island; on Punta Arena, on Español point, and on Mandinga point, all on Puna island; Veintemilla on St. Elena point; Manta bay on the north end of the town; Coquito point in Esmeraldas river; and the Galápagos islands, near Lido point, north side of Wreck bay, W. coast of Chatham island; on Galera point, extreme south point, one F. and Fl. every minute, D. 2d ord.

Brazil.—Has a large number of lighthouses, varying from 1st to 6th order, those of the first and second being at the following places:

Cape S. Agostino, F. D. 1st ord.

Morro de S. Paolo, Rev. every min., flash of 15 seconds, D. 1st order.

Abrolhos isle, Rev. every min., flash of 11 seconds, D. 1st ord.

Santos (Moela island), F. D. 1st order.

Cape Frio, Focinho do Cabo point; Rev. every 1¾ min., eclipses every 45 sec., C. 1st ord.

Santa Anna, eastern end of the island; Rev., red and white; 2 white flashes, and one red flash; intervals of 30 seconds, D. 2d ord.

Raza, Fl.; red and white; 4 white flashes, and one red flash of 4 seconds each; interval between flashes, 11 seconds, electric, 2d ord.

Arvoredo island, S. E. point, F. red and white alternate lights every 2 minutes, D. 2d ord.

Rio Grande do Sul, F. and Fl., every 30 seconds, C. 2d ord., on north point of entrance, 1 1-10 miles from extremity of point.

Tutoya, at entrance; Pedra do sal, on the point Jericó á Coára; Mandard; Ceará, one on Macuripe point, and one in Aracati at the mouth of the river; João da Cunha; Touro; St. Roque on cape; the Rocas; Fernando Noronha; Rio Grande do Norte, on the fortress of Santos Reis Magos; R. Para'iba, on the Pedra Secca, off the bar at Cabedello; Goyanna; Olinda point off Fort of Monte Negro; Pernambuco, on reef 50 yards from Picaço fort; Macaio, one mile from anchorage, on west part of the mountain; Cururipe; Samoes, north point of the river São Francisco; Cotinquira bar, on the watch tower; Real river, at the entrance; Itapicuru; Itapuan; Bahia of São Salvador, on Fort San Antonio, on Fort Santa Maria, and on Fort do Marcello; in Pará river at Magoari; Braganza shoal, light vessel; Gaviotas island; Chapeo Virado, point about 54 miles up the Pará river; Fort da Barra; Catijuba; Marianno; Capim; Panacuera; Gayabal; Jutahy; Atalaia point; Guagara; Gurupy; San João islands; in Maranhão or Maraham; at Itacolomi; Alcántara; San Luiz; Santo Antonio da Barra; San Márcos (light vessel); Rio Grande de Belmonte, at the river's mouth; Porto Seguro; Rio Doze; Espirito Santo bay, on St. Lucia point; Ilha do Francez, on the highest point of the island; Cape St. Thomé, on the cape; Ponta Negra; Rio de Janeiro, on Fort Santa Cruz at the east entrance, on Fort Villagagnon at the eastern end, and on Calhabouço point; Castelhanos; Acaya; Cairucu; São Sebastião; Lago do Santos; Cananea, on Bom Abrigo islet, upon the fort, east side do Mel; Paranagua bay, on the summit of the Morro das Conchas or Conxas, N. E part of the isle do Mel; São Francisco, on the Cape João Diaz, erection proposed; João Diaz, proposed; Anhatomerim, on islet; Santa Catharina island, on Punta dos Naufragados; S. point; Batuba on Batuba point; Cape Santa Martha; Torres, Tramanday, and Mortardas, construction proposed. Harbor lights: Surengonea, on the island; Estreito, on point; Bojuni, on point; Cape Maria, on cape. Proposed harbor lights: Cristovão, on point; San Simão; Barba Negra, on isle; Albardão.

Rio de la Plata.—Cape Santa Maria, Rev. every minute, D. 1st ord.; San José Ignacio point; F., 2d ord.; Maldonado bay, E. point int. bright 1½ min., eclipse, 25 sec. D. 1st ord.; Montevideo, W. side of the harbor on the mount., F. and Fl., the flash every 1½ min. for 5 sec., preceded and followed by a short eclipse, C. 1st ord., visible at 25 miles; another light at the end of the breakwater or San José point, and a third one on cathedral, south tower; at Punta Brava, on the point, 200 yards north of Punta Brava reef; English point, light-ship, north part of the bank in 7 fathoms; Polonia, on cape; Cape Santa Maria; Plaza de la Independencia; Plaza Cazancha; Panela shoal, light-ship, 600 feet N. 22 degrees W. of shoal; Point Indio, light-ship, N. 50 degrees E., 11 miles from Indio point, in 3½ fathoms; Point Indio on the point; Chico bank, light ship, N. 45 degrees from point; Atalaya 11½ miles, in 4½ fathoms; Colonia, S. W. angle of the plaza; Santiago village, 2 lights from the extremities of the piers being constructed near Santiago; Ensenada de Barragan. These piers form the entrance to the projected artificial harbor of La Plata; Amarga point, on the point; Farallon island, on island in 1½ fathoms, guard-ship, outer road; Buenos Aires, at Riachuelo on the mole-head, and at Martin Garcia on the island; Bahia Blanca, or Monte Hermoso; South Barranca, on the east point; in Magellan's straits, on Dungeness point, Delgado point, Morro Nuñez, 833 yards west of the Morro, Cape Gregory, and Core hill; Sandy point end of the new pier, Voces bay: and the following proposed to be erected: on Cape San Isidro, Cape Quod on reef near by; Cape Upright, on rock N. E. of Cape Sentinel island.

Perú.—Pacasmayo, at the end of the wharf; Etan; Lobos de Afuera; San José, Foca island; Payta (erection proposed), Tambez, on the Malpelo point (proposed); Mollendo harbor, on the promontory, visible at 3 miles; Islay, proposed; Pisco, at the end of the mole, proposed; Palominos island, proposed; San Juan; Callao, at San Lorenzo island, on the N. point, approaches to the landing place; also on the dock wall, east part of the bay; and on Galera point; on Hormigas, and Macogue islands; Casma bay, Samanco head; Ferrol (Port Chimbote), Chimbote point, and Guañape, the last 7 named being proposed; Salaverry on the slope of the hill, a port light.

Chili.—Between Punta Arenas and the strait of Magellan there are 12 lighthouses in the chief ports, some with Rev. and others with F. lights. Of the latter kind there are many in minor ports. Huafo island, N. E. point; Huaneec island, Westoff island, and Cape Guabun, all three proposed; Chiloé island; on San Cárlos de Ancud, Huapilacuay or Punta Corona on the N. part, Aguy point, telegraph station in San Cárlos de Ancud, on large mole in San Cárlos de Ancud, and point Sangallan, N. end, proposed; Lacao island, proposed; Abtao island, S. E. bank, off the island; Queuu island, on point Pinto; Ancud gulf, proposed; Puluqui island, on point San Ramon, pro-

posed; Maillen island; east point; Puerto Montt, center of town, leading light; Caucahue island, on Lobos point, Ancud gulf, and Chauque island, N. W. bank of Ancud gulf; Tranque island, on Centinela point, Córdoba gulf; Valparaiso, lighthouse on the Angeles point, on the southern extremity of the bay, showing a F. and Fl. light, visible at 20 miles; Santa Maria island, at the N. end, on the summit of the hill, a Fl. light, and 1st. Ord.; the light shows one flash every minute; duration of the flash, 15 seconds, of the eclipse, 45 seconds; the light is 258 feet above the sea-level, and 49 feet above the ground, and illuminates the entire horizon, excepting between the bearings N. 15 degrees, 30 minutes W., and N. 6 degrees W. over a part of the Lavapié channel. From this light Lota light bears S. 60 degrees, 40 minutes E.; and the south pass of Bio Bio bears N. 52 degrees, 06 minutes E.; position, latitude, 36 degrees, 59 minutes, 07 seconds S., and longitude, 73 degrees, 32 minutes, 30 seconds W. Cape Quedal; Valdivia, on Niebra fort point, and on Corral, 55 yards west of the captain of the port's office; Quenle bay on Quenle point; Mocha island on the N. and S. points; Port Lebú, on the mole; Point Lavapié, on the western end; port Lota on the Morro Lutrim, N. side of entrance to Lota bay; port Coronel, on the Puchoco point, and on the mole; Talcahuano, on the Viuda island, and on the Quiriquina island, Concepción bay; Port Tomé on the mole; Cape Carranza; Port Constitución, on Sentinel hill; Church rock; Cumberland bay, Island of Juan Fernandez, on the mole; Sugar Loaf island, on the N. W. point, and in the cove, on the end of a large mole; this last proposed; San Pedro point; on Western point, proposed; Antofagasta, on an islet in the harbor; Iquique; near the center of Iquique island; Arica, proposed; Coles point; Tambo de Mora, proposed; Topocalma point, on the West point; Toro point, on the N. W. point; Port San Antonio; Coquimbo bay, on point at the entrance of the bay; on Tortuga point; and on the mole; Pájaros island, on the largest island, proposed; Port Tortoralillo, on the island off north outer point, proposed; Chañeral, on the island, proposed; Zarco bay, on the West point; Peña Blanca, on the south end, proposed; Huasco, on the point, proposed, and on the mole, the light burning when steamers are expected; Herradura point, proposed; Carrizal Bajo; on the West point; Medio point, on Caldera point, proposed; Caldera, several lights intended to be erected; Cabeza de Vaca, on the point, proposed.

Santo Domingo island exhibits several lights, viz: at Puerto Plata, on the hill, near the station, rev. every 20 seconds, 4th ord.; at Santo Domingo city, on San José fort; at Arcadins; at Port-au-Prince, on Lamentin point; one on Fort de l'Islet, at the entrance to Port-au-Prince harbor, F., green, 5th ord., visible at 11 miles; another light, 450 feet westward off the same port.

Cuba.—The Cuban coasts are well provided with lights, as follows: Cape San Antonio, Rev. every ½ minute, C. D., 2d Ord., the greatest brilliancy 6 seconds; Cayo Jutías, F. and Fl., D., 2d Ord., proposed; Habana, on the Morro castle, F. and Fl. every ½ minute, stone color, C. D., 1st Ord.; Bahia de Cadiz, Rev. every minute, C. D., 1st Ord.; Paredón Grande, F. and Fl. every minute, C. D., 1st Ord.; Maternillos point, F. and Fl. every minute, C. D., 1st Ord.; Nuevitas harbor, Pilot's point, F. D., 6th Ord.; Lucrecia point, Rev., red, every minute, D., 2d Ord.; Point Maisi, F., C. D., 2d Ord.; Cape Cruz, F. and Fl. every 3 minutes, C. D., 2d Ord.; Gobernadores point, Rev., D., 2d Ord., proposed; Santa Cruz point, F., proposed; Guanes, Rev., D., 3d Ord., proposed; Cárdenas, on Piedras cay, F. and Fl. every 2 minutes, C. D.; ditto on Diana cay, F., D.; Cruz del Padre, F., C. D., 4th Ord., not to be depended on; Sagua la Grande, F., D.; Cayo Francés, F., not to be depended on; Baracoa, F., D., 4th Ord.; Guantánamo, F. with red sector, F. with green sector; Santiago de Cuba, 300 feet off Morro castle, F. and Fl., every minute, flash of 10 seconds, C. D., 4th Ord.; Jagua or Cienfuegos, F. and Fl., C. D., 3d Ord.; Cochinos bay, D., 4th Ord.; Diego Perez, light-vessel; Batabanó, lantern; Pepe, isle of Pines, on the cape, 2d Ord., proposed.

Porto Rico.—San Juan, on the Morro point; Mayagüéz, on the wharf west of the custom house; Morrillos de Cabo Rojo, Rev. every minute; island of Muertos, F. and Fl. every 2½ minutes; Ponce, F., red, C. D., 4th Ord.

United States.—The United States can justly boast of the possession of a system of coast and port lights, which is not excelled by that of any other nation in the world. This branch of the public service is in charge of the light-house board, dependent from the treasury department, but having at its head a naval officer of high rank, while each one of its 16 districts has an inspector, who is a naval officer and a military engineer. On the 1st of January, 1888, there were 730 lights distributed to the best advantage on the coasts, roads, etc., of the two oceans, the gulf of Mexico, navigable lakes, rivers, and even canals. The names of the lights are printed as fol-

lows; 1st, primary sea-coast lights; 2nd, secondary sea-coast lights, and lake coast lights; 3d, light-vessels; and 4th, sound, bay, river, and harbor lights. Vessels approaching or passing light-vessels of the United States in foggy or thick weather are warned of their proximity by the sounding of a bell, fog-horn or whistle, on board of the light-vessels, at intervals not exceeding five minutes. In some places the fog-signal is in a building. The expense of maintaining such a large number of efficient establishments is necessarily heavy; the salaries of keepers ranging from $400 to $1,000 a year, though a few are under $400. Some of the keepers are also allowed well paid assistants. Several states of the union have enacted special laws for the protection of light-houses, beacons, buoys, and day-marks erected on their respective territories by the United States light-house board. Under section 5,358 of the revised statutes of the United States, "every person who holds out or shows any false light, or extinguishes any true light, with intent to bring any vessel sailing upon the sea into danger, or distress, or shipwreck, shall be punished by a fine of not more than five thousand dollars, and imprisonment at hard labor not more than ten years."

Bermudas.—On Bermuda island, Gibbs' Hill, Rev. every minute, C. D. 1st ord.; on St. David's island, F., D. 2d ord.

Bahamas.—These islands exhibit a number of lights on the most convenient places: Great Isaac, Rev. every ½ min., C. 1st ord.; Gun cay, Rev., red. every 1½ min., C. 2d ord.; Hog island in Nassau harbor, F., C. 1st ord.; another one in Nassau harbor; Abaco, Hole-in-the-Wall, F., C. 1st ord.; Abaco, Elbow cay, F., D. 1st ord.; Lobos cay, F., D. 1st ord.; Crooked Island passage; Bird rock, rev. every 1½ min., C. 2d ord.; Castle island, F., D. 2d ord.; Sal cay bank, N. Elbow, F., D. 2d ord.; do., one more light; Great Stirrup cay; Great Inagua island; Salvador or Walling's island; Hay island; and Athol island.

Jamaica has lights at Port Antonio, on Folly point; Morant point, on extreme east end of Jamaica, rev. every 3 min., bright flash once every min., 100 ft. above high water, visible at 21 miles, C.; Plumb point, on the palisades at the entrance to Kingston harbor, 70 ft. high, visible at 20 miles, D. 3d ord.; one on Fort Augusta, essentially a harbor light, 40 ft. above the sea, shown from a beacon on the fort, white to the south and west, and red to the eastward; and one on Turk's island.

Dominica island, in Rosseau bay, at the extremity of the mole.

St. Lucia.—On Vieille Ville shoal, and on Cocoanut shoal.

Barbados—.On Ragged point, 600 ft. inshore; in Carlisle bay, on Needham's point; on Adjutant-General's wharf, in Bridgetown; and on the end of the mole in Bridgetown.

St. Vincent, on Fort Charlotte in Kingston; one on Ragged point, Rev. every 2 min., D. 2d ord.

Grenada, on Fort George in St. George's harbor.

Trinidad, at Port Spain, on the jetty; one on the hulk Ripon; and another on Icacos point, on the s.w. extremity.

Tobago, Scarborough Bacolet, or Red point.

Guiana.—The port of Georgetown has a lighthouse with a rev. light visible for many miles. The light-ship is 11 miles off at the north end, near the mouth of the river; Berbice light-ship is in 6 degrees, 29 minutes, 10 seconds N. latitude, 57 degrees, 23 minutes, 40 seconds W. longitude; Demerara, a light-vessel in 19 feet; a lighthouse, S., 27 degrees W., and a jetty, west side of entrance; Nickerie river, at the mouth of the river; Surinam, a light-vessel; Maroni river, on both west and east sides of entrance; Cayenne, five lights.

Guadeloupe has several lights, viz.: at Petit Terre, 600 feet from the eastern extremity; at Pointe-a-Pitre, on Gozier islet, on Fouillole point, S. C.; on Monrove islet; at St. Marie, in the N. pass, between Gros Loup and Les Peignes Cayes; at Port Louis; at Port le Moule, a light visible at 5 miles; at Basse Terre, a harbor-light on the landing, which is visible at 2 miles; at Anse à la Barque, on the left side of the entrance, and at the bottom of the cove; in the little island of Marie Galante, at Grand Bourg.

Martinique.—At Fort de France, in Pointe des Negres, on the fort; on Fort St. Louis, in s.w. part of the fort, and on the boat landings; at St. Pierre bay, in St. Marthe point, on the battery at summit; in Bertin place, S. extremity, and on the edge of the bank; on Caracoli mountain, Caravelle peninsula, F., D. 1st ord.; on the summit of the Vigie, N. side of the entrance to Castries harbor, and on Tapion rock on the south side of the entrance to the same harbor.

Great Curaçoa, in St. Anna harbor, on the Rif fort.

Little Curaçoa, near the centre point of the island.

Bon Aire, on Point Sacre, south point of the island; at Kralendijk (El Puerto), west side of the island, opposite the little Bon Aire.

The Spanish-speaking countries of America adopted years ago the French metric system, and have since officially used it. The several governments have also endeavored to prevail on their people to use it in their ordinary transactions, but they have been only measurably successful, the masses still clinging to the old weights and measures employed in colonial times. The same is to be said in respect of Brazil which adopted the French system as far back as 1862 and made it compulsory in 1872, though the people yet continue to use the Portuguese system.

The usual weights and measures of the Mexican republic are as follows: In ships' freight a tonelada is equal to 20 quintals, or 2,000 pounds, equivalent to 2,029 English pounds.

1 quintal = 4 arrobas = 100 lbs. = 101 lbs., 12 oz. English.
1 carga or load = 8 arrobas; 1 arroba = 25 lbs.
12 almudes = 1 fanegas; 12 fanegas = 1 cahiz.
9 pulgadas = 1 palmo; 12 pulgadas = 1 foot.
3 feet = 1 vara; 2 varas = 1 estado.

Land Measures.

The old Castilian vara is divided into tercias or thirds, cuartas or fourths, making 36 Spanish inches, which are equal to 33⅓ American inches. One hundred American yards are equal to 108 Spanish varas. Fifty Mexican varas make one cordel. One league measures 50 cordeles, or 5,000 varas. Sitio de ganado mayor (a place for raising large stock, such as neat cattle, horses, etc.) is a square whose sides measure 5,000 varas; and whose area, therefore, is 25,000,000 square varas, or 4,428 American acres. Criadero de ganado mayor (place for breeding large stock) is one-fourth the extent of the sitio de ganado mayor. Sitio de ganado menor (place for raising small stock, like sheep, goats, etc.) is a square whose sides measure 3,333⅓ varas, having an area of 11,111,111 1-9 square varas. The criadero de ganado menor is 1,666⅔ varas square, or 2,777,777 7-9 square varas.

Caballeria de tierra is equivalent to 33⅓ American acres. In form it is a rectangular parallelogram with 552 varas on one side and 1,104 on the other, containing an area of 609,408 square varas. Three caballerias are equivalent to 100 American acres. A media caballeria contains 304,704 square varas. A suerte de tierra is the 4th part of a caballeria, and of the same form, with the long side of 552 varas, 276 varas in width; containing an area of 152,352 square varas. The caballeria in sowing parlance has 12 fanegas of good seed-oats; the fanega being equal to 3 American bushels, or a superficies of 8.5624 American acres. Solar de tierra is the name of any piece of land of less extent than a suerte. Solar para casas, or house lot, is 50 varas square, or 2,500 square varas. Fundo legal is a tract of land of 1,200 varas square, with an area of 1,440,000 square varas, being a town site.

Porción, occasionally used, is a tract of land 16,000 varas long, and 1,000 varas wide. Labor is a cultivated field; a square of 1,000,000 square varas, or 177 American acres. To ascertain the number of acres in a given number of square varas, divide by 5,646, rejecting fractions.

Mexico by the law of March 15th, 1857, accepted the metrico-decimal system, but the inhabitants of the rural districts have continued to observe the old system, though it is no longer legal. The following clauses appear, among others, in President Juarez' decree of August 2d, 1863, to establish the new system, as regards lands and waters. Measures of land and those of water, whether for irrigation or power, are to be estimated by engineers and surveyors by the metrical-decimal system; at the same time, and during the next ten years, reduction shall be given to the units of measure which have been hitherto used. Values of lands and waters are to be derived from the existing ones and are to be reduced to the new units of measure. Longitudinal, itinerary and superficial measures, are henceforth to be those fixed in the table sanctioned on the 10th of November, 1862, in connection with the metrico-decimal system established by the law of March 15th, 1857. The litre, or capacity of a cubic decimetre, shall be the only measure for waters both in the country and in cities. In the country the second shall be the unit of time, and in cities the minute. One surco is held equal to 6½ litres a second, in country measures; and in cities the paja is considered equal to 0.45 of a litre a minute.

Table of Mexican Land Measures.

Names of land measures in Spanish	Length in Varas	Width in Varas	Area or superficies in sq. varas	Area in Caballerías and decm'ls	Metrical system			Americ'n acres
					Hectares	Ares	Centares	
1 Hacienda	25,000	5,000	125,000,000	205,117	8,778	05	–	22,143½
1 Sitio de ganado mayor	5,000	5,000	25,000,000	41,023	1,755	61	–	4,428
1 Sitio de ganado menor	3,333⅓	3,333⅓	11,111,111	18,233	780	27	11	1,968⅓
1 Criadero de " mayor	2,500	2,500	6,250,000	10,256	438	90	25	1,107.1-5
1 " " menor	1,666⅔	1,666⅔	2,777,777⅞	4,558	195	06	77	492.1-10
1 Fundo legal; town site	1,200	1,200	1,440,000	2,363	101	12	31	255.1-10
1 Labor	1,000	1,000	1,000,000	1,641	70	22	44	177.0-5
1 Caballeria de tierra	1,104	552	609,408	1,000	42	79	53	107.5493
½ " "	552	552	304,704	500	21	29	76	53.5519
¼ " "	552	276	152,352	250	10	69	88	26.5519
1 Fanega de sembradura de maiz	276	184	50,784	83¹₁₂	3	56	62	8.5624
1 Solar para casa, &a.	50	50	2,500	4	—	17	55	—

There is no noticeable difference in the measures of the republics of Central America and that of Mexico.

Colombia adopted the metric system in 1857. In custom house business the kilogram is equivalent to 2,205 lbs. avoirdupois. In ordinary transactions the arroba of 25 lbs. is 12½ kilos; the quintal of 100 lbs., 50 kilos; and the carga of 250 lbs., 125 kilos. The vara is used for retailing purposes, though the English yard is mostly employed. In liquid measure the French litre is the legal standard.

In Venezuela, the metric system was also officially recognized in 1857.

Ecuador, by a law of December 6th, 1856, made the metric system the legal standard. The vara is equal to 33⅓ English inches. Dry measure: 1 cahiz = 12 fanegas; 1 fanega = 4,440 cubic feet. For liquids: 1 mayo = 16 cántaros; 1 cántaro = 8 azumbres; 1 azumbre = 4 cuartillos; 1 cuartillo = 13 ounces. Weights: 1 lb. = 16 ounces or 2 marcos; 1 marco = 8 ounces; 1 ounce = 4 quarts; 1 quart = 2 octavos; 1 octavo = 2 adarmes; 1 adarme = 36 grains; 1 ounce of gold = 6 castellanos, 2 tomines, or 516 grains.

Brazil's old weights and measures are: libra = 1.012 lbs. avoirdupois; arroba = 32.38 lbs. avoirdupois; quintal = 129.54 lbs. avoirdupois; algueire (of Rio) = 1 English bushel; oitava = 55-84 grains.

The weights and measures of Portugal are also used. The following table is reliable:

Brasilian.			English.			French.	
8 oitavos	=	1 onça	=	442.7 gr. troy	=	26.688	gram.
16 onças	=	1 arratel	=	1.012 lb. avoird.	=	459	"
32 arratels	=	1 arroba	=	32.38 "	=	14.688	kilog.
4 arrobas	=	1 quintal.					
13⅓ quintals	=	1 ton	=	15.61 cwt.	=	993.15	kilog.

The Brazilian ton for a vessel's cargo is reckoned at 20 cwt.; 15 fanegas = 2.856 quarters, or 8.3 hectolitres; 2 varas = 1 braça = 2.430 yards = 2.222 metres. The vara has 5 palmos, and 3 palmos make one covado, this last being equal to 26.247 English inches.

In the Argentine republic, the following system prevails:

Argentine weights.			English weights.			French weights.	
25 pounds	=	1 arroba	=	25.3185 pounds	=	11.484	kilog.
4 arrobas	=	1 quintal	=	101.274 "	=	45.937	"
20 quintals	=	1 tonelada	=	19.691 cwt.	=	918.735	"

Salt is sold by the fanega, equal to 0.1942 quarters; 100 fanegas = 19.42 quarters. The fanega is 1½ imperial bushels.

Liquid measure.—4 canecas or 1 barrel = 2.09 English gallons, or 9.5 French litres; 6 barrels make a pipa. In Uruguay the masses use the following: fanega (dry) of 4 cuartillos = 3.6426 English imperial bushels; pipa (liquid) of 6 barriles = 106⅓ imperial gallons; 15 Montevideo pipas = 16 Buenos Aires pipas.

The quintal has 4 arrobas, or 100 pounds. The vara has 3 piés; or 2 9-10 English feet. In Paraguay the quintal = 101.40 lbs. avoirdupois; the arroba = 25.35 lbs. avoirdupois; fanega = 1½ imperial bushels; lineas (land measure) = 69⅓ English square yards; legua madre = 12⅓ English square miles.

In Bolivia the libra is equivalent to 1.014 lbs. avoirdupois; quintal, 101.44 lbs. avoirdupois; the arroba (25 lbs.) = 6.75 imperial gallons; gallon = 0.74 imperial gallon; vara = 0.927 yard; square vara = 0.859 square yard.

Perú promulgated the metric system in 1860, but it has not gone into general use. The weights and measures are as follows: square vara = 0.859 square yard; 1 vara = 3 feet = 1.0188 metres = 2¾ English feet; 2 varas = 1 braza, or fathom; cuadra, surface = the square of 150 varas = 4 acres; 1 quintal = 101½ English lbs.; 1 fanega = 156 lbs.; 1 arroba = 25 lbs.

In Chili the following rates rule: onza = 1.014 ounces avoirdupois; libra = 1.0144 lbs. avoirdupois; quintal = 101.44 lbs. avoirdupois; arroba, 25 lbs. = 25.36 lbs. avoirdupois; tonelada, 20 quintals = 2,028.8 lbs. avoirdupois; fanega = 0.6 bushels, or 90.75 litres; the arroba of wine = 7.75 imperial gallons = 85.21 litres.

In the Dominican republic the old Spanish system prevails, but efforts are made to introduce the metric system.

In Hayti weights are about 8 per cent. heavier than English weights; the measures are the same as those used in France.

In Cuba 1 arroba = 25 lbs.; 4 arrobas = 100 lbs. = 1 quintal = 101¼ lbs. avoirdupois, the equivalent of 46 kilos; 100 kilos nearly = 220 Spanish lbs.; 100 American tons register are about 110 of the Cuban.

In Porto Rico the same weights and measures rule as in Cuba.

Tables of Weights and Measures in the United States.

Troy weight.—24 grains make 1 pennyweight, 20 pennyweights make 1 ounce. By this weight gold, silver, and jewels only are weighed. The ounce and pound in this are the same as in apothecaries' weight.

Avoirdupois weight.—16 drams make 1 ounce, 16 ounces make one pound, 25 pounds make one quarter, 4 quarters make 100 weight, 2,000 pounds make 1 ton.

Dry measure.—2 pints make 1 quart, 8 quarts make 1 peck, 4 pecks make 1 bushel, 36 bushels make 1 chaldron.

Liquid or wine measure.—4 gills make 1 pint, 2 pints make 1 quart, 4 quarts make 1 gallon, 31½ gallons make 1 barrel, 2 barrels make 1 hogshead.

In measuring land:

1 fathom	=	2 yards
1 yard	=	3 feet or 36 inches
5½ yards	=	1 rod
40 rods	=	1 furlong
8 furlongs	=	1,760 yards, or 1 mile
3 miles	=	1 league

English and French Systems of Weights and Measures.

The unit of the French metric system is the metre, equal to 39.37 inches.

The measures of length are:

1 millimetre	=	.03937 inch
1 centimetre	=	.3937 inch
1 decimetre	=	3.937 inches
1 metre	=	39.37 inches
1 decametre	=	32.809 feet
1 hectometre	=	19.8842 rods
1 kilometre	=	.6213 mile
1 myriametre	=	6.2138 miles

Measures of surface:

1 square centimetre	=	.155 square inch
1 square decimetre	=	15.5 square inches
1 square or 1 centare	=	10.764 square feet 1.96 square yards
1 square decametre 1 are	=	3.954 square rods .0247 acre
1 sq. hectometre 1 hectare	=	2.471 acres
1 square kilometre	=	.3861 square miles

Measures of volume:

1 cubic centimetre	=	.061 cubic inch
1 cubic decimetre 1 litre	=	.0353 cubic inch 1.0567 liquid quart
1 cubic metre or 1 stere	=	35.3165 cubic feet

Measures of capacity: the litre is the unit of capacity, both of liquid and of dry measures, and is equal in volume to one cubic decimetre.

		Dry Measure.		Liquid Measure.
1 centilitre	=	.61 cubic inches	=	.338 fluid ounce
1 decilitre	=	6.10 cubic inches	=	.845 gill
1 litre	=	.908 quart	=	1.0567 quart
1 decalitre	=	9.081 quarts	=	2.64175 gallons
1 hectolitre	=	2.837 bushels	=	26.4175 gallons
1 kilom., stere	=	28.37 bushels 1.308 cubic yard	=	264.175 gallons
1 myrialitre	=	283.72 bushels	=	2,641.75 gallons

Measures of weight: the gramme is the measure of weight, and is eqnal to a weight of a cubic centimetre of distilled water.

1 centigramme	=	.1543	plus grains troy
1 decagramme	=	1.5432	plus grains troy
1 gramme	=	15.432	plus grains troy
		.03527	plus ounces avoirdupois
1 decagramme	=	.3527	plus oz. avoirdupois
1 hectogramme	=	3.5274	plus ozs. avoirdupois
1 kilogramme, or kilo	=	2.6792	pounds troy
		2.2046	plus lbs. avoirdupois
1 myriagramme	=	22.046	plus lbs. avoirdupois
1 quintal	=	112.	lbs. avoirdupois
1 tonneau or ton	=	2,204.62	plus lbs avoirdupois
		1.1023	tons

In the British West India islands and in British Guiana English weights and measures are in use. In the Danish possessions those of Denmark are the legal ones, but except at the custom house, English weights and measures are in general use. In Dutch Guiana the old Amsterdam pound is used, 100 pounds being equivalent to about 111 English pounds. The old Rhine foot (1.03 Eng. feet) is also in use. The new system of weights and measures of Holland is coming into vogue.

It is well known that in the first quarter of the present century Spain lost her American possessions, with the exceptions only of Cuba and Porto Rico. Holland also lost the Cape of Good Hope, and France her best colonies. The continental blockade paralyzed commerce, and compelled most nations to import their colonial products, and also their cotton by way of Russia and Turkey. On the restoration of peace in 1815 trade quickly revived, notwithstanding the obstacles thrown in its way by a line of internal custom houses, and the commercial policy adopted by the several nations. The most important measure for developing German commerce was the zollverein, or customs union, initiated by Prussia in 1833. One of the most potent elements of prosperity in trade is rapidity of communications, and of transportation. This desideratum has been attained by the construction of railways and telegraphs, while other factors are the improved machinery and methods applied to the development of agriculture and manufactures. Commerce has likewise been benefited by the removal of many pernicious obstructions. Great Britain, for instance, put an end to the monopoly of the East India company, abolished the duty on foreign cereals, and reduced her tariff rates, thus securing for her trade an enormous development. The United States followed her closely in some points with similar results, and it is now impossible to estimate the future prosperity of this young and ambitious nation, with her vast extent of territory, the enormous increase of her population and industrial products, and the yield of her mines of gold, silver, iron, copper, coal,

petroleum, etc. The growth of her foreign trade has been marvellous, and that of her internal trade is almost beyond calculation, thanks to her vast system of railways and other means of communication, which have accelerated this development. This vast and constant increase in the prosperity of the United States is held by some a source of danger to Great Britain, which the latter may in the future resent, even unto war, but such fears may be safely set aside. Common interests will keep the peace between the two nations.

The Hispano-American republics, after encountering almost insurmountable difficulties in consolidating their institutions, have at last inaugurated an era of peace, which promises to be lasting, and their commerce has been keeping pace with the rapid development of their agricultural and other industries. Brazil has also made vast strides in supplying the markets of the world with her staples, especially with coffee. Great Britain, chiefly, France in the second rank, and Germany in late years, have had almost the entire control of the Mexican, and Central and South American demand for manufactured goods. The United States have not made such progress in this direction as their position and other circumstances permitted. The fact is that their business men have been too closely engaged in supplying the demands of the home markets for manufactures, and have neglected those of the sister republics on this continent. The question now is what should business men of the United States do to extend American trade in the West Indies, Mexico, and Central and South America? The suggestions and recommendations advanced with this intent have not been of easy accomplishment. The following seem to be sound and worthy of consideration. They are suggested by men who have lived in those countries, and had opportunities to study the subject.

American manufacturers, associated together, should employ intelligent, energetic, and honest agents to represent them in the several countries. A knowledge of the language of the country and a liberal allowance for salaries and travelling expenses, including a certain amount for the cost of entertaining those whose patronage they hope to secure, would enable them to interchange civilities as well as to transact business, for it is a fact not to be lost sight of that they will have to deal mostly with gentlemen in good social position. The agents must be furnished with samples of the goods which they offer to supply, and the lowest prices at which they can be sold. They must make it their business to study the tastes, and even the whims, of those whom they would have for patrons, and communicate them to their employers with the minutest details. If American manufacturers or other business men desire to win the trade of the Hispano-American republics and Brazil, they must not forget that however perfect an article may be deemed in the United States, this circumstance is not all-sufficient; they must suit the taste or fancy of the consumer abroad. This is made evident in such articles as American axes, pots, etc., of the best quality, for which there is no demand in many parts of South America. Again, most of the sales of im-

ported merchandise are made on credit, the English, French, and Germans allowing the Spanish-American merchants longer credits and more favorable terms than North Americans. The latter must know that credits of from 12 to 18 months are expected. This system seems to exist from both custom and necessity. The wholesale merchant sells his stock to dealers or middlemen on the coast and in the interior, who, as the crops and other supplies are received by them in payment from the farmers, hunters, etc., ship them to the merchant to cancel their indebtedness. Under this mode of trading long credits are required. Operations are carried on with regularity, provided the consumers are not by some untoward event disabled from meeting their obligations. European merchants are aware of these conditions and cheerfully respond to the requirements. American business men, if they desire a share of such trade, must conform to the usage. The people of Mexico and South America are willing enough to deal with American merchants and manufacturers, and even to give them the preference over European competitors, but their wishes and usages must be duly attended to; and there must be no dishonest practices. The goods provided must be uniformly the same at every shipment, and must agree with the samples on which contracts or orders were predicated.

The English, as I said before, had for many years the control of Spanish-American markets, but in later times, the Germans, with their practical common sense, have been superseding them. British diplomatists and consuls in their official reports unanimously assert that their countrymen are being supplanted everywhere by the more thrifty and industrious Germans. German commercial travellers devote their attention mainly to the furtherance of their business, allowing themselves no leisure till the trade is assured. They establish houses and send for their younger countrymen, who, after becoming thoroughly conversant with the business, are ordered to other promising localities with a stock of goods to establish branches, and thus after a few years they become masters of the field. The French and Belgians are also successful competitors with the English. The effect of British supineness is noticed particularly in the Plata region and in Brazil. Americans have shown still greater apathy, standing by with folded arms, while those three nationalities have carried on their fight with the English, ousting them from markets which they used to consider exclusively their own.

It is, indeed, matter for regret that Americans and American newspapers do not manifest a proper interest in the affairs of the American continent. Columns are daily filled with European occurrences, even of the most trivial nature, while Mexican or South American events, if noticed at all, are disposed of in a few lines. The United States government is endeavoring to atone for this neglect, and congress has passed a resolution having in view the settlement of international difficulties by arbitration, and the promotion of commercial intercourse between the United States and the republics of Mexico and Central and South America. The

Spanish-American governments will be invited to hold conferences in Washington with the six United States delegates whom the executive is authorized to appoint for this purpose.

A Spanish-American writer, in treating of a projected "Unión Ibero Americana," says: "While we devote our sympathies of blood, language, and character to the Unión Ibero Americana, we must necessarily choose, in regard to trade, one of the two ways open to us; either to continue our commercial transactions divided among all the chief markets of the world, or to accept what the United States may propose; which one should we accept? it cannot be defined as yet. It is necessary to ascertain first what advantages the invitor will offer us." He then refers to remarks, made by Mr. McCreary, a representative in congress from Kentucky: "There exist south of our country fifteen republics and one empire covering an immense territorial area, ten times greater than France, Germany, Spain, and Italy, and which is as large as the United States and the whole of Europe, having at the present time upwards of 50,000,000 inhabitants, united to us by extensive land frontiers, and many of which are as near New York as California is, and yet are almost unknown to us." Of the immense exports of the United States, upwards of $750,000,000 in 1887, only $95,000,000 went to the Spanish-American republics and Brazil. Americans have evidently given little heed to the magnitude of those markets and to their importance. American manufacturers might provide them with nearly all the articles represented in the $260,000,000 which formed the aggregate of their imports. The Spanish-American countries need and are able to consume American industrial and agricultural products, just as the Americans need and are able to consume Spanish-American natural products and raw material.

The chief exports of the Mexican republic are gold, silver, copper ore, coffee, cochineal, vanilla, indigo, hides, hemp, mahogany, logwood, and other woods.

In 1875–76 the imports amounted to $28,485,000, and the exports to $25,435,000. In 1879–80 the exports were $32,663,525, of which $13,416,600 worth went to the United States; $11,037,594 to Great Britain; $519,471 to France; $1,498,734 to Germany; $1,009,368 to Spain; and $506,488 to South America.

The trade with the United States was as follows in the three years 1879–81:

	1879	1880	1881
Exports	$ 6,761,284	$ 7,869,864	$11,172,733
Imports	14,047,819	16,325,417	17,464,126

According to the official journal the total value of exports for the year 1882–83 was $41,807,595, of which $16,500,000 went to the United States, and about $17,000,000 to Great Britain. One half of the exports was shipped from Vera Cruz. The trade during the fiscal year ending June 30, 1884, was as follows:—

To Great Britain	$19,340,152
" United States	21,824,401
" France	2,881,999
" Spain	1,016,757
" Germany	1,218,276
" South America	358,578
" Other countries	85,333
Total	$46,725,496

The precious metals figured in the above to the extent of $33,478,283. In the years 1883 to 1887 the imports and exports of Mexico have been as appear in the following tables:—

Years	Imports	Exports
	Dollars	Dollars
1883–1884	34,025,000	46,725,000
1884–1885	35,819,000	46,553,380
1885–1886 (estimated)	40,000,000	43,647,716
1886–1887	....	49,191,929

The following table shows the proportion of precious metals and other produce in the exports of Mexico during the last five years:—

Years	Sundries	Precious Metals	Total
	Dollars	Dollars	Dollars
1882–1883	12,178,935	29,628,655	41,807,590
1883–1884	13,252,215	33,473,185	46,725,500
1884–1885	13,425,190	33,128,190	46,553,380
1885–1886	13,741,316	29,906,400	43,647,716
1886–1887	15,631,427	33,560,502	49,191,929

The following table shows the value of the principal articles exported in 1886–87, in addition to precious metals:—

Hemp	$3,901,628	Lead	$ 823,206
Coffee	2,627,478	Gum	357,413
Hides and Skins	2,211,439	Ixtle	348,842
Woods	1,848,793	Tobacco	850,807
Vanilla	693,891	Sundries	1,996,459
Living Animals	471,471	Total	$15,631,427

The trade of Mexico lies chiefly with the following countries in the last two years; the following table includes precious metals:—

Countries	Exports to		Imports from	
	1884–85	1885–86	1883–84	1884–85
	Dollars	Dollars	Dollars	Dollars
United States	25,858,000	25,429,594	7,900,080	8,343,000
England	15,367,280	11,600,067	7,462,000	7,681,000
France	2,235,456	3,936,276	12,704,292	13,500,000
Germany	1,420,605	1,571,399	3,890,000	3,326,000
Spain	1,242,645	913,253	1,180,000	1,190,000
Central and South America	629,097	122,192	1,595,000	1,799,000

The 1,270 vessels of Mexican shipping include all small coasting vessels. In the fiscal year 1884–85, 4,510 vessels with 1,995,095 tons entered Mexican ports.

The United States treasury reports furnish the following data with reference to the trade between that country and Mexico. Mexican imports and exports of merchandise and specie were in—

1878	
Imports	$20,552,433
Exports	21,594,005
1885	
Imports	$29,244,624
Exports	88,063,409

In reviewing the trade of the United States with Mexico, the West Indies, and Central and South America, these reports compare the exports from the United States to Mexico in 1870 and 1887, which at first sight would seem to have remained stationary. This, however, is not the case, for the large exportation of domestic merchandise by way of the several railroads crossing the frontier, is not included in the United States' statistics of exports, as it is impracticable to obtain those data. This deficiency has been estimated by the Financier, a journal published in the City of Mexico, at about $6,000,000. As late as 1875 England supplied Mexico with nearly all the manufactured goods she needed, especially in cottons, but during late years, thanks to the railways, the northern republic has taken the lead, and it is believed that she will eventually hold the supremacy over all other nations combined in the Mexican markets.

Railroad facilities have brought about a development of trade through Paso del Norte, which is in the Zona Libre, or Free Zone, a portion of the Mexican frontier extending 20 kilometres in width from Matamoros on the gulf coast, through the states of Tamaulipas, Coahuila, Chihuahua, Sonora, and Lower California, to the Pacific ocean, all bordering on the United States. Foreign goods imported for consumption in this zone are exempt from duties, and ports situated within its limits are free ports. At the same time all real estate must be owned by Mexican citizens, unless by special concession from the national government to foreigners. Leases of real estate within the zona by foreigners are common, however, and some Americans have become owners of real estate by permission of the supreme government, a privilege which is readily granted. Paso del Norte has under such advantages grown, within a few years, into the leading commercial city, as a port of entry and distribution for foreign merchandise, and as a point of export to the United States. The following figures set forth the status of the place in 1886 and its growing importance:

Total exports in the fiscal year, ending June 30, 1886	$8,714,664
Ditto for the previous year	2,077,006
Increase	6,637,658

The indications were that the exports of 1886 would reach $10,000,000 or more. The chief items were:

Gold and silver bullion	$ 356,232
Mexican silver dollars	1,666,441
Silver bullion	345,863
Silver ore	803,504
Gold coin	45,175
Cattle	86,360
Gold bullion	16,332
Precipitate of silver	82,866

There were imported by the Mexican Central railroad 2,288 cars loaded with merchandise, valued at $6,745,500. These goods were cleared at the custom house of Paso del Norte, and shipped to the interior of Mexico; they do not include those introduced for local consumption. The imports by the Mexican Central comprised cotton, machinery and agricultural implements, bluestone, iron, sulphur and soda, wagons and wagon material, powder, beer, wines and liquors, lumber, candles, quicksilver, sugar, cotton seed, salt, oil, live-stock, grain and feed, sundries and mixed goods. One day in May, 1888, there was a rush at the office of the Mexican consul at Paso del Norte, and the invoices for the custom house across the river were certified and dispatched at the rate of one every five minutes during the eight working hours of the day. The Mexican government has introduced some modifications in the rules affecting manifests. Mere typographical or unintentional errors are allowed to be corrected without the imposition of fines.

In the district of Guaimas (Sonora) American manufactures occupied in 1885 the position formerly held by those of Europe 15 years before. In the district of Alamos, principally supplied from the port of Mazatlan, the imports for 1886 were $200,000, of which amount $50,000 was for goods classed as of American manufacture, and $150,000 of European make.

The imports of Sonora for 1886 are recapitulated as follows:

From U. S. by sea and through Nogales by rail..	$874,223
From U. S. by sea and through Nogales via Alamos	50,000
From U. S. via Arizona clandestinely	75,000
Imports from the U. S. (approximate)	$999,223
From Europe through Guaimas by sea, and through Nogales by rail	$346,312
From Europe to Alamos	150,000
Total imports from Europe (approximate)	$496,312
Total of imports for 1886 (approximate)	$1,495,535
Total " " 1885 "	1,581,940
Decrease in 1886	$86,405

Exports from the Guaimas district were almost wholly to the United States and by steamer. But silver ores were exported in considerable quantities in 1886 over the Sonora railroad and its connections to Denver, and by sailing vessels from Alamos to Mazatlan. The aggregate amount of silver ore did not exceed 5,000 tons, worth about $400,000. The amount of coined silver and bullion, shipped from Alamos to Mazatlan for reshipment to the United States, was estimated at $200,000. Of coined dollars and bullion, cattle and fruits taken clandestinely across the Arizona border, no data could be obtained. The following figures are from custom house and consular reports:

Exports to the U. S. through Guaimas	$ 557,942
Exports to the U. S. through Guaimas by rail via Nogales	420,724
Exports to the U. S. through Alamos by Mazatlan	200,000
Exports of ores from Alamos via Mazatlan, and by rail through Nogales	400,000
Total exports to the U. S. in 1886	$1,578,666
Total " " " 1885	$1,018,305
Increase in 1886	$ 660,361

Exports from the Guaimas district to Europe are made through the United States.

The following figures exhibit the exports and imports of Mexico through the port of Vera Cruz, and her imports through the port of Tampico in the years 1885–'86:

	1885	1886
Merchandise—Exports	$ 2,919,510	$ 4,109,730
Precious metals—Exports	12,501,050	10,908,185
Imports	8,741,970	1,165,000

These figures are aggregates of values at the places of production, which are less artificial than those estimated at Mexican ports, as the latter include, besides freight and insurance, enormous duties and high landing expenses. The Vera Cruz price is about 110 per cent. more than at the place of production. The government of Mexico has taken steps to extend Mexican commercial relations to Japan and China. It is also preparing for a creditable representation of Mexican productions at the great exhibition of industry which is to take place at Paris in 1889. This cannot but lead to a further development of Mexico's foreign trade.

In the first years of the 19th century, toward the end of the Spanish domination in Central America, only about $1,000,000 worth of merchandise was imported from Spain through the bay of Honduras, and the returns were chiefly in indigo, coin, and bullion. There was some trade also with Perú and Cuba. Smuggling had become very prevalent, and by a large importation of foreign goods, drained the country of specie. After the separation from the mother country, Central America had very little foreign trade during many years, until the railway was built across the isthmus of Panamá, and steamships began to make periodical visits at the several ports on the Pacific. The Central Americans were now placed in constant as well as rapid communication with the outer world, and this they did not fail to take advantage of in developing agriculture and commerce, which was further aided by liberal legislation. Trade has since been free with all friendly nations.

The chief exports of Guatemala are cochineal, coffee, cotton, wool, sugar, India-rubber, hides, and indigo. The imports consist of edibles, wines and liquors, and manufactured goods in large variety.

The export of cochineal for 1860-64 was about 68,000 centals; for 1870-74, 59,009 centals; and for 1879-83, 2,845 centals. Of coffee, 1870-74, 695,671 centals; 1879-83, 1,519,494 centals. The total exports for 1851-57 were $9,613,099; 1860-64, $7,386,541; 1870-74, $12,418,083; 1879-83, $22,562,867. The total value of imports for 1851-57 was $7,672,682; for 1860-64, $6,268,227; for 1871-75, $12,304,289; for 1876-80, $15,054,152; and the average for 1880-84, $2,700,000. In 1883 the largest imports were from Great Britain, including Belize, $884,205; from the United States, $529,458; from France, $149,687; and from Germany, $128,296. In 1885 the war between Guatemala and Salvador, and the revolution in Panamá, paralyzed commerce. The following tables furnish a pretty correct statement of Guatemalan trade for 1881-85:

Years.	Imports.	Exports.
1881	$3,665,000	$4,084,000
1882	2,652,000	3,719,000
1883	2,421,000	3,719,000
1884	3,830,000	4,933,000
1885	3,788,134	6,520,330

The chief staples of export were sugar and coffee, which in 1885 amounted to $317,149 and $5,203,181, respectively. To the imports the largest contributor was Great Britain, who supplied $1,735,954 worth in 1884, and $1,278,659 worth in 1885, while the United States only furnished $593,626 in 1884, and $391,837 in 1885. The estimated value of the total exports was $6,872,479 in 1886. In that year the exports to the United States were $1,957,632. The total imports were of the estimated value of $3,235,803 in 1886 (including bullion and coin, $1,130,928). The chief import was cotton, $1,092,492. The imports from Great Britain were valued at $1,104,794; from the United States, $523,640; from France, $258,967; from Germany, $203,465; South America, $626,550; Central America, $249,584. The chief exports are coffee, valued at $5,883,417; sugar, $352,555; hides, $170,473 in 1886. The sugar and fruit trades have recently been considerably developed.

The value of the commercial intercourse of the republic with the United Kingdom is not reported in the board of trade returns, which summarize, under the heading "Central America," the commerce of the five states of Costa Rica, Guatemala, Honduras, Nicaragua, and San Salvador with Great Britain. The commercial intercourse of the whole of Central America with the United Kingdom is shown in the following table:

Years	Exports from Central America to Great Britain	Imports of British Produce into Central America
	£	£
1882	1,545,842	743,366
1883	1,117,414	839,191
1884	1,305,090	894,399
1885	1,065,131	670,467
1886	1,117,042	679,266

The principal articles exported from Central America to Great Britain in the year 1886 were coffee, of the value of £806,914, and indigo, of the value of £185,134. The staple article of British produce imported into Central America consists of cotton manufactures, the value of these imports amounting to £470,283 in 1886.

The United States treasury report makes the following comparisons in the trade of Guatemala between 1870 and 1886:

	1870	1886
Imports	$1,844,893	$3,537,000
Exports	2,472,707	6,736,000

A decree of the Guatemalan government in 1888, abolishing the *zona libre* or free zone at Livingstone and Santo Tomás, on the Caribbean coast, created great consternation; a numerous delegation of the chief merchants, together with the foreign consuls, visited the capital in July with the object of having the decree annulled.

The movement of shipping in Guatemalan ports in 1885 and 1886 was as follows:

			Arrivals.		Departures.
1885	Steamers,	303	346,653 tons.	303	345,423 tons.
	Sail vessels,	73		72	

Of the arrivals 282 were under the American flag, 59 under the British, and 25 under the German.

		Arrivals.	Departures.
1886	Vessels of all classes,	391—433,890 tons.	396—432,484 tons.

Honduras chiefly exports cattle, hides, mahogany and other woods, sarsaparilla, tobacco, indigo, and india-rubber. The imports consist of provisions, liquors, cotton, silk goods, hardware, etc. There are no perfectly reliable data as to imports and exports, because the chief custom houses are farmed out to private parties, whose interest prompts the concealment of facts relating to their revenue.

The following figures approximately express the actual trade:

Year	Exports	Imports
1856	$ 825,000	$ 750,000
1867	825,000	750,000
1872-3	2,870,000	1,000,000
1876	1,234,983	
1877	595,000	640,000
1880	650,000	750,000
1882-3	3,415,000	2,885,000
1886	2,000,000 to 2,500,000	2,000,000 to 2,500,000

The United States treasury report has the following comparison between 1870 and 1884:

	1870	1884
Imports	$1,120,000	$1,500,000
Exports	1,305,000	1,600,000

From Trujillo the exports of 1886 were to the value of $340,980, which included 2,500 head of cattle, valued at $25,000; mahogany, $60,000; hides and deerskins, $43,248. All the flour consumed in Honduras is imported from the United States. Nearly every other kind of merchandise comes from England, France, and Germany. Freights from these countries are cheaper; the goods are expressly made for this market, and are well packed for shipment, and for mule-back transportation in rainy seasons, and across swollen streams.

The republic of Salvador receives most of her foreign imports from England, Germany, France, and Italy. The masses of the population being very poor, cheapness rather than quality is considered. Most of the products of the country are sent to Europe, and a very considerable portion to Great Britain, where they are admitted free of duty. Hence that nation is a strong competitor of the United States, offering a premium of 30 to 40 per cent. for the Salvadoran trade. If to this we add long credits and other advantages, the supremacy of European nations in the trade of the republic is sufficiently explained. Nevertheless, American gold is worth 3 per cent. more than English gold, and exchange favors San Francisco and New York; hence a diversion of a share of the coffee crop to American markets. Bales of domestics of the lowest quality and counterfeit machetes bearing the brands of the best American factories are often found; but they are known to be the products of European factories. It is an indisputable fact that the products of American toil, skill, and industry are constantly being supplanted in Salvador, as well as in other parts of Spanish America, by base imitations, iron machetes being substituted, for instance, for those of steel made in the United States.

The trade marks of American manufacturers are stamped or imprinted on worthless German imitations. American cotton goods are driven out of these markets by much inferior goods bearing the brands and trade marks of the best American mills. Vile German claret is sold in Central America with the trade marks of the best wine growers of California. Bottles bearing the labels of the great breweries of St. Louis, Philadelphia, and Milwaukee contain foul decoctions brewed in Germany. The "Kentucky whisky," so labelled, but distilled in Germany, is perhaps the deadliest of the beverages imported. Colt's and Remington's repeaters are often sold in Central America which were not made in the United States. The foregoing facts I have obtained from reliable official sources. The poor uneducated people of Central America in their ignorance call for the cheapest goods, and Germany supplies the demand. But the day will come when they will discover their error, and become aware of the greater durability of American wares. A few bales of American domestics already find a market at 30 per cent. higher prices than European goods of the same nominal grade.

The natives already know the difference between the European iron and the American steel machete, and are rapidly learning to distinguish a perfect American sewing machine from the cheap, rudely-made German imitation. But dire poverty compels the majority of them to buy the inferior article because of its cheapness.

The exports of Salvador for 1855-61 were valued at $8,831,990; for 1864-68, $13,931,675; 1871-78, $29,206,958; 1880-83, $8,708,000; 1884, $6,065,799; a large portion of them to Great Britain. The products of the country, except indigo, ores, gold and silver bullion, and jewelry were exempt from export duty. The articles exported were indigo, coffee, sugar, tobacco, caoutchoue, rebozos, balsam, hides, and cotton. The imports for 1855-61 were valued at $6,816,879; 1864, $1,233,711; 1866-68, $5,799,912; 1871-74, $12,869,514; 1877, $2,186,009: 1880-83, $5,750,000; 1884, $2,646,628; and consisted mainly of provisions, wines and liquors, hardware, and cotton, linen, woollen and silk fabrics. The United States treasury report makes the following comparisons between 1870 and 1884.

	1870	1884
Imports	$4,068,718	$2,800,000
Exports	3,757,324	6,065,799

In the year 1886, the value of the imports was estimated at $2,427,648, and that of the exports at $4,754,648. To the imports Great Britain contributed $853,337; the United States, $610,144; France, $318,450; and Germany, $273,881; Colombia, $161,041; Mexico, $41,623; the other Central American states, $105,520. Of the exports, $991,199 went to Great Britian; $1,548,344 to the United States; $491,371 to Germany; and $620,588 to France; $589,160 to Italy; $177,188 to the Central American states. The principal exports are coffee, indigo, sugar, and silver. In 1884, 371 vessels of 463,686 tons entered the ports of the republic, and 368 of 463,399 tons cleared.

Nicaragua has but a limited foreign trade. Her principal exports are coffee, india-rubber, cabinet and dye-woods, gums, indigo, sugar, rum, cacao, gold, dairy products, cattle, and pearl and tortoise. The imports are the same as those of her sister republics.

The exports for 1861-73 (excluding 1871-2) were valued at $4,153,677; 1873-6, $5,694,009; 1877-80, $6,308,589; 1881-84, $8,926,965. The imports of 1861-73 (excluding gold and omitting the years 1870-72) were $3,355,600; 1873-76, $4,313,876; 1877-80, $5,117,661; 1881-84, $7,157,525. The following were the imports and exports in the years 1879-85.

Years	Imports	Exports
1879-80	$2,936,000	$3,708,000
1881-82	3,362,000	4,022,000
1883-84	3,794,981	4,904,648
1884-85	2,800,000	2,443,000

A great decrease occurred in 1884-5, as the result of the attempt made by President Barrios of Guatemala to bring about Central American unification. In 1886 the imports amounted to $1,868,000 and the exports to $2,557,000. Of the exports of 1884, $810,674 went to the United States; $775,922 to Great Britain; $234,351 to France; $228,617 to Germany. Of the imports of 1886, $564,000 were contributed by Great Britain; $388,000 by the United States; $170,000 by France; and $110,000 by Germany. In 1885, 275 vessels with 272,549 tons entered the ports of the republic.

The chief countries that hold commercial relations with Costa Rica are, in Europe: Great Britain, France, Germany, Spain, Italy, Switzerland, and Belgium; and in America the United States, Chili, Colombia, Ecuador, Mexico, and the other Central American republics. The chief articles of import are shoes, cassimeres, cotton, woollen, linen, and silk fabrics, drugs, flour, hardware, sugar, and malt and other liquors. The exports are coffee, bananas, india-rubber, hides, dye-woods, timber, gold bullion, etc. Commercial transactions are made directly between sellers and purchasers without the intervention of brokers, official or otherwise. There are official brokers whose functions are not well defined, and who usually confine their intervention to the survey and sale of damaged merchandise, in connection with insurance matters, and occasionally to selling goods at public auction by agreement of creditors, or for the settlement of estates. They rarely if ever interfere as brokers in the sale or purchase of merchandise, exchange, or real estate, except in such instances as above specified. Most of them, however, are business agents and commission merchants. Merchandise is generally sold on a credit of 3 or 6 months without interest; guarantee or security is seldom required. Exchange, on foreign countries, however, is always sold for cash, payable on delivery of the paper.

The exports of Costa Rica amounted in 1845 to $631,700; 1852-59, $7,458,913; 1864, $1,812,682; 1868, $2,189,118; 1871, $2,288,450; 1873-4, $8,192,517; 1877, $5,308,800; from May 1, 1879 to April 30, 1881, $7,724,810; 1882-3, $6,470,000; 1884, $4,219,617; 1885, $3,292,508. The imports in 1845, $463,000; 1852-59, $7,330,398; 1864, $1,718,000; 1871, $2,225,000; 1873-4, $6,980,000; 1877, estimated, $2,000,000; 1880-83, $7,220,000; 1884, $3,521,921; 1885, $3,660,931. The exports (exclusive of coin) were in 1885, $3,066,957; in 1886, $3,019,157; the imports were in 1885-86, $3,428,696, and in 1886-87, $4,562,727. The increase in the imports of the last fiscal year, included $718,346 as the value of material for the construction of the railway; the increase is therefore reduced to $415,685. The United States official report makes the following comparison between 1870 and 1885.

	1870	1885
Imports	$2,895,185	$3,661,000
Exports	3,042,772	3,297,000

Of the importations in 1885, $1,687,940 came from Great Britain; $605,016 from Germany; $443,302 from Spain; $356,645 from the United States; and the balance from several countries. Of the exports, Great Britain took $1,362,190; Germany, $375,192; France, $325,212; the United States, $1,058,519; the rest of Central America, $101,299; Colombia, $60,898. In 1886, Great Britian supplied $1,378,886 worth of goods, and took away $1,439,680 worth of produce; the United States furnished goods valued at $1,010,490, and took away mostly in coffee and bananas, $1,022,036. Germany and France both contributed and carried away less than on the previous year.

The republic of Colombia has been in late years steadily developing her foreign trade. The principal commodities exported are cinchona, tobacco, coffee, hides, tagua, (vegetable ivory), cotton, indigo, India-rubber, divi-divi, cabinet and dye-woods, ores, mother-of-pearl, fruits, and skins. The imports are preserved articles of food, mineral water, wines and liquors, dry goods, hardware, and fancy articles. The price of edibles has risen 100 per cent. in the last few years.

Custom houses exist at all the ports of entry, except in Panamá and Colón, which are free ports. It was ordered that goods shipped to those two ports, like those to the others of the republic, must be accompanied with consular invoices; but the order was later rescinded. The consular fee, formerly $4, has been increased to $3 from and after the 20th of November, 1888. In Panamá and Colón, in lieu of customs dues, the merchants are required to pay what is termed a commercial tax, payable by every person doing mercantile business of any kind. The tax is at present fixed at $240,000 a year for the city of Panamá, which is assessed by a special board of 5 members, three of whom are chosen by the government, and two by the merchants themselves. Sales of merchandise are made either for cash, or on credit, directly from vendor to purchaser, brokers being unknown. Credit sales are ordinarily made on the good faith of the purchaser for one to four months' time, and even longer, at the end of which the bill is sent for collection. Due bills are very seldom given, no interest is charged, and as every merchant is his own banker, there is no regular bank; the transaction is kept open until the purchase money is paid. This loose system of doing business is often onerous to merchants, as it compels them to have much capital out on small credits, upon which they are losers of from 10 to 25 per cent. yearly, according to the nature of the business, for bad debts.

The following law, which was signed by President Nuñez in Bogotá on May 25, 1888, should receive the attention of all engaged in business:—

The National Legislative Council hereby decrees:

Art. 1.—All firms or companies formed outside of Colombia, and which carry on a permanent business within its territory, shall register their deeds of partnership or charters in the notary's office of the district where they intend doing business.

Art. 2.—Such companies or firms will not be considered to have been legally established, nor will they be able to claim the protection of the law, if they have not previously been duly legalized by the executive. For this reason those companies or firms will be considered to have been dissolved which, up to the present date, have not been legalized in the manner herein provided, or do not obtain such legalization within six months from date.

Art. 3.—All firms and companies shall have a duly legalized representative, with a fixed place of abode.

Art. 4.—Should any company not appoint a representative, then the president of the republic will appoint some one to represent the company, and such nominee will enjoy the rights and privileges appertaining to the position when filled by any one appointed by the firm or company.

Art. 5.—The present law in no way affects the Panamá Interoceanic Canal Company, which will continue to be ruled solely by the existing treaties and contracts.

Art. 6.—Judges of civil circuit courts, and their secretaries, will receive one-half of the tax of one cent for each sheet they stamp

in the books of commercial houses, and which, as provided by the commercial code, must bear the sign manual of the judge and secretary.

Americans exhibit a marked absence of effort to gain the supremacy over their European competitors in the Colombian markets. Europeans, by proper attention to details have gained possession of the field; thus it is that print goods and river boats come from England; hardware from Germany; onions and potatoes from France and Holland; butter from Denmark; glassware and Yankee notions from France; in fact, there is nothing carried from the United States that cannot well be obtained elsewhere. It is true that certain lines of produce and manufactures to the value of several million dollars are imported into Colombia from the United States; but American traders and manufacturers, if they are not more energetic than heretofore, may see even that trade slip from their hands. Their English, French, German, Belgian, and Spanish competitors are rivals among themselves for the Spanish-American trade, but they are of one mind to keep the Americans out of these markets, if possible. They will not let moral scruples stand in their way.

It must be confessed, however, that some of their devices are perfectly legitimate, such as that of promoting trade by an increase of communications by means of steamship lines, many of which are liberally subsidized. Belgium encourages the emigration of her subjects to Colombia, who will in time become consumers of Belgian produce and fabrics. Great Britain directs her representatives to strengthen her grip on the trade. There is every reason for the United States successfully competing for the Colombian trade. The short distance between the two countries would afford a better chance for quicker sales and returns. There is another fact that ought to be borne in mind. The time has passed when the people of Colombia, or of the rest of Spanish America, will show ignorance of, or indifference to the quality of the goods supplied them. The competition for their patronage has prompted comparisons, and given rise to preferences. American manufacturers have been slow to learn this lesson, and are yet far behind their European rivals.

The exports of the republic in the years 1874-75 amounted to $9,984,886, those to Great Britain for 1874 being $4,978,000, or more than half the total; the imports in the same period were $14,844,856, of which $2,964,976 were from Great Britain. The exports of 1875-76 amounted to $12,722,811, which included $1,991,872 in gold and silver coins, $410,500 worth of ores, $51,674 in gold dust, $428,828 in gold ingots, $822,724 gold and silver ingots, and $40,000 of precious stones. The exports of the fiscal years 1876-77 were valued at $14,477,897. The chief countries to which such exportations were made were Germany, the United States, and France, which took, in 1875-76, respectively, $2,572,228, $2,510,833, and $2,869,624, Great Britain coming in for $324,336, and the Argentine republic for $244,416. The value of imports in the fiscal year 1875-76 was $6,709,109. The foreign trade during the five years 1876-80 was as follows: Imports, $33,921,491; exports, $63,154,657. In 1881 the imports amounted to $12,183,970, and the exports to $15,886,947.

The foreign trade was mainly with Great Britain and the United States. Far more important was the transient trade over the railway between Colón and Panamá. This transient trade was estimated at $35,000,000 annually, two-thirds representing the trade from the Pacific to the Atlantic. The exports to Great Britain in those five years were $18,757,115, and the imports there-

from, $28,246,205; in 1881 the exports to that country were $6,860,685, and the imports, $5,932,075. The value of the local trade of the isthmus it is not possible to determine, no official record being kept of imports, but it has been estimated at $450,000 for 1879. Since the construction of the ship canal was begun the local trade has been greatly augmented with the large increase of population. The following table shows the trade of Colombia with three leading nations:

Year		United States	England	France
Exports to	1881	5,991,890	$ 6,677,505	$ 5,016,006
	1882	4,961,470	5,452,281	5,803,696
	1883	5,171,455	3,809,798	4,188,336
	1884	3,891,843	2,108,538	4,233,606
Imp'ts from	1881	5,383,138	5,999,776	6,214,345
	1882	6,408,346	5,296,666	6,959,346
	1883	6,888,871	6,099,414	5,984,352
	1884	6,831,821	5,944,571	9,169,403

The trade of the United States with Colombia in 1885 and 1886 was as follows:

	1885	1886
Imports from Colombia	$2,342,077	$3,008,921
Exports to Colombia	5,397,412	5,294,708

The United States treasury report makes comparison of the foreign trade of Colombia in 1870 and 1886 as follows:

	Imports	Exports
1870	$ 3,901,900	$7,783,407
1886	14,000,000	8,000,000

The exports over the Bolivar railway are from the marginal towns and villages along the rivers accessible by river steamers, and owing to lack of good roads only a fractional portion of what might be sent to the coast reaches commercial channels. Seven steamship lines touch at Salgar, namely, a German line from Hamburg, twice a month; the British Royal Mail, to and from Southhampton, twice a month; the West India and Pacific, English, twice a month from Liverpool; the Atlas, English, from New York twice a month; the Harrison, English, from Liverpool and New Orleans twice a month; the Generale Transatlantique, French, twice a month, and a Spanish line twice a month. If the Dorado and Antioquia roads are completed there will be four daily trains, instead of two as now, to Salgar. The Bolivar railway is under American management. The extension of the branch road to Puerto Colombia (N. E. side of Salgar bay) makes the distance from the Barranquilla terminus to the pier 18 miles. The Salgar terminus will probably be abandoned. Barranquilla is 14 miles from Salgar wharf; steam-tugs and lighters between Salgar and the shipping will soon be done away with. It is also likely that lower rates of freight to the pier at Puerto Colombia will be established. The present rate for passengers is $5 per head for first-class, from Barranquilla to the shipping; $3 for second-class; the rate of freight is $2.50 per ton. A gentleman representing an association of New Orleans visited Colombia in 1888 to ascertain the best means of increasing commercial relations between the Colombian Caribbean ports, and that city. The object of that association in which were represented every branch of business, was to establish a line of steamers under the name of the New Orleans and Colombian Steamship line. It was well known that the one ship employed had already created an appreciable flow of trade, and this without the usual celerity of connection, or regular schedule of movement.

The republic of Venezuela exports coffee, hides and skins, cacao, copper ore, and a variety of other things. She imports cotton, silk, linen and woollen goods, edibles, wines, malt and distilled liquors, hardware, etc.

American exporters cannot be too particular about the quality of their goods being uniform. It is poor policy, after opening a profitable market for an article of good quality, to lose it by attempting to pass off for good that which is inferior; this has been done rather too often. Consul Plumacher at Maracaibo, expatiating upon this, justly says, "Marked degeneration in a single one of our exports affects unfavorably our general commercial reputation." Venezuela would afford a good field for California wines and brandies; much the greater part of these articles, imported as French produce, are execrable and unwholesome. Good American preserved fruits will throw out of the Venezuelan and other South American markets the foreign abominations with which they are flooded. Manufacturers are also advised that while preserving a high standard of excellence, they must not fail to consult the ornamental in order to attract the eye. Fully three-fourths of the foreign mercantile capital in Venezuela is German. The Germans have gained a firm grip on the country by catering to popular preferences, and even indulging whims and peculiarities. A very large variety of commodities and manufactured goods is imported from the United States; in some branches this country virtually has the monopoly, as in flour, for instance. The superiority of many American manufactures is daily recognized. In cotton goods the American industry has to stand a hard fight with the Manchester fabrics, and so far it has not been generally successful. However, American gray drills and domestics are well appreciated, and in some instances have superseded the Manchester makes. The American qualities are so superior that the English article is often stamped as American to insure its sale. Prints are gaining ground. Printed cotton drills and ducks have driven from the Venezuelan markets nearly all other printed cotton drills. By far the greatest number of carriages and wheelbarrows used in Venezuela come from the United States. A large quantity of American fire-arms are also imported.

The Venezuelan exports in 1874-75 amounted to $17,908,841, most of them going to Germany, France, the United States, and the British and Dutch colonies. The imports for the same year were estimated at $10,877,609, most of them being from Germany (Hamburg), England, France, the United States, Curaçoa, and Trinidad.

There has never been a direct trade worth mentioning between Venezuela and Great Britain. The great bulk of trade, both import and export, has been through the British island of Trinidad. But a decree of 1882, by which all goods coming from Trinidad to Venezuela were subjected to an additional import duty of 30 per cent., has greatly diminished the amount of trade with that island. British merchandise is now to some extent shipped to Hamburg, and there transhipped on German vessels at lower rates. The trade has greatly increased within a few years. The total imports in 1880 were $14,800,000, and the exports $12,800,000; the imports being about one-fourth of English goods, and the other three-fourths of American, French, and German produce. The exports from La Guayra to the United States in the year ending December 31, 1880, was valued at $936,804. The following has been the trade of 1883–85: total of imports in the 3 years, 33,446,736 bolivares; exports ditto, 65,577,828 bolivares; each bolivar being worth in Venezuela one-fifth of a peso. The

United States treasury report makes the following comparison of Venezuelan trade between the years 1871 and 1886:

	Imports	Exports
1871	$4,058,609	$ 6,251,677
1886	9,103,478	15,884,728

A bi-monthly steam service was established between La Guayra and New York in November, 1879; the route was afterward modified via the island of Curaçoa, with which Venezuela carries on considerable trade. The trade of the republic was carried on in 1883 in 2,460 vessels, of which 240 were American, 224 British, 204 French, 262 Spanish, and 1,250 (mostly small sailing craft) Venezuelan. In that year Venezuela had 2,492 vessels, with 24,924 tons; 20, with 2,139 tons, being under steam.

During the year ending June 30, 1886, the total imports were valued at 47,168,277 bolivares, thus: 15,296,873 bolivares from the United States; 9,960,105 from Great Britain; 9,273,379 from France; and 8,949,085 from Germany. The exports were sent chiefly to Germany, the United States, and France. The coffee exported in 1886 was 85,733,423 bolivares, and that of cacao 8,447,986 bolivares. The total trade of Great Britain with Venezuela in the five years 1882-86 was, according to the British board of trade: exports, $6,106,895; imports; $12,490,620. The bulk of the Venezuelan produce imported into the United States, mostly coffee, enters free, while our American goods imported into Venezuela are heavily taxed.

American agricultural machinery has the lead in Ecuador. There are no imported articles on the market for sale. When wanted, they are ordered and imported. Large purchases of machinery are sometimes made for cash; sometimes part cash, and part on time; at other times on a credit of three to six months, usually the latter when credit is given. A showy article would have the preference, other things being equal.

Most of the commerce of Ecuador is with Great Britain, the chief articles of export being Peruvian bark, cacao, coffee, India-rubber, hides, and tagua, and the imports cotton fabrics.

The exports to Great Britain in the four years 1877-81 were valued at $8,260,390 and the imports in the same period at $5,431,420. The exports from Ecuador were valued at 4,915,120 sucres in 1885, but advanced to 6,565,000 sucres in 1886. The United States official report makes the exportation of 1880 $8,014,409. The chief export is cacao, valued at 5,115,700 sucres in 1886; India-rubber, 829,905 sucres; hides, 803,750 sucres; coffee, 216,075 sucres; ivory, 99,030 sucres. The estimated value of the imports in 1885 was 5,725,000 sucres. The foreign commerce of Ecuador is largely with the United Kingdom, and centres in Guayaquil. The total value of the exports of Ecuador to Great Britain, and of the imports of British produce into Ecuador, was as follows in the five years 1882 to 1886:

Years	Exports from Ecuador to Great Britain.	Imports of British Home Produce into Ecuador.
	£	£
1882	227,630	235,706
1883	259,186	169,937
1884	218,609	335,960
1885	150,990	129,428
1886	225,754	254,962

The chief articles of export from Ecuador to Great Britain consist of cacao, of the value of £120,554 in 1884, £98,561 in 1885, and £193,975 in 1886; Peruvian bark has declined from £100,846 in 1882 to £9,613 in 1886. Of the imports of British produce in Ecuador, cotton goods, to the value of £154,294, formed the principal article in 1886.

Imports at Guayaquil in 1880-1886.

Year	Amount
1880	$1,476,874
1881	1,243,348
1882	967,085
1883	1,106,600
1884	1,587,505
1885	994,365
1886	1,808,018

Comparative Table of Exports from Guayaquil, 1866 and 1886.

1866

Names	Pounds	Price	Total
Cacao	244,161.88	$ 12.00	$2,929,987
Coffee	2,752.17	17.75	48,438
India-rubber	4,365.75	19.25	83,822
Hides	90.00	1.75	144
Orchilla	4,527.16	6.50	28,974
Sole leather	19,598.00	2.50	47,035
Tagua	13,500.42	2.00	27,001
Sarsaparilla	335.33	16.00	5,365
			$3,170,716

1886

Names	Pounds	Price	Total
Cacao	366,862.06	$ 14.40	$5,282,814
Coffee	27,441.41	10.00	3,019
India-rubber	4,206.12	43.00	1,867
Hides	14,048.51	14.00	127
Orchilla	1,671.66	7.60	32
Sole leather	795.00	4.00	3,699
Tagua	26,250.76	3.60	945
Sarsaparilla	143.44	8.00	1,147
			$5,293,650

Increase in 1886, - - - - - - - $2,122,934

Movement of Shipping at the Different Ports in 1886.

Arrivals—255, of which 119 were English, 31 Ecuadoran, 15 French, 8 American, 15 German, 5 Danish, 6 Chilian.

Departures—230.

No reports were received from Manta, Caraques, and Callo, but the number could not have been large. The port of Guayaquil received 191, and Esmeraldas 64.

It may be said that the commercial possibilities of Brazil have been developed only to a limited extent. Trade having been handicapped and checked, the country has not made the rapid progress which its vast territory and immense resources would seem to call for. The imperial government's policy has been to levy heavy duties on both imports and exports. The heavy burdens laid on importations have not been with the view of protect-

ing domestic manufactures, but mainly of raising a large amount of revenue. The exportation of products has been discouraged by the heavy exactions; a superabundant raw material remains uncalled for; and on the other hand, the policy of filling the treasury coffers at the expense of foreign nations keeps the much-needed foreign commodities which cannot be made at home out of the country, to the disadvantage of the people, and even of the imperial treasury.

Foreign commerce in Brazil is represented at the leading ports mostly by Europeans, with a natural inclination to favor trade with their own countries. German merchants are numerous. These foreigners have an advantage over most Americans; they speak several languages, which fits them better for engaging in foreign trade. American goods, as a general thing, have a good name in Brazil, and as Consul-General Andrews at Rio said, "it stands our manufacturers in hand to continue to put conscience in their goods." Americans are supposed to be entirely indifferent in the matter of developing an export trade. They are, on the other hand, said to entertain an exaggerated idea of the Brazilian markets. There is probably some truth in this. We may take for granted that the few million dollars' worth of commodities Brazil has yearly received from the United States were as much as her power of consumption would admit. But this power grows apace, and by especial activity and temporary sacrifices, a larger trade in American goods might be developed, and supplant those brought from Europe, or for the matter of that, there might be a field wide enough for all to have a fair share of the country's trade. For the present Americans must have the fact always before them that our Brazilian friends have been used to long credits, and that Europeans have ever been prompt to grant them. Americans have acted otherwise; if they want to develop an export trade to Brazil they must submit to some sacrifice at first. When the name and character of their produce shall have become well known, and their need fully recognized, then will be the time to expect remunerative results from early labors and sacrifices. There is really no good reason why American merchants should not make exertions to gain a strong footing in Brazilian markets. The surest way toward its accomplishment would be to support steamship lines of the first class between the ports of New York and New Orleans or Mobile and Brazilian ports, carrying passengers and merchandise at low rates. Why should the consumer in the Mississippi valley receive his coffee burdened with the expense of transportation from New York? Why should the Brazilian consumer of western produce be subjected to a similar burden? Unnecessary burdens will not help to build up a trade between the two countries.

The necessity of American steamships plying between Brazilian and American ports is shown clearly in the great advantages the Europeans derive from the export of their manufactures on their numerous and regular lines, in addition to their ability to make cheap goods; it is said, and this is probably true, that some American inventors of the best machinery have them constructed in

Europe where they can have cheaper labor. American manufacturing or commercial firms could, however, find a good field for many things in which they excel. If they do not prefer to act jointly to send out competent agents to represent them; a member of each firm desirous of entering the field should visit the various countries and study their trade and business usages. Most of the houses in the Spanish-American countries have some partner or employé who is conversant with the English language. The province of São Paolo affords a good field for the sale of ploughs, and cultivators, and perhaps reapers for cutting upland rice. Agriculturists, blacksmiths, carpenters, etc., want strength and durability, and appreciate the implements made in the United States; but they care nothing for a "label," especially after it has once misrepresented.

Rio de Janeiro and Bahia, the chief commercial marts of Brazil, were in the 18th century the two principal ports of South America, the latter being the metropolis of Brazilian trade; but Rio has made greater progress since, and now holds the supremacy, commercially as well as politically. Pernambuco had a considerable trade, especially with Liverpool. In 1800 about 44,000,000 lbs. of sugar were exported. In 1837 the exportation had risen to about 264,000,000 or 265,000,000 lbs., and in 1868 it was nearly 250,000,000 lbs. Brazilian coffee, competing with that of Java, has meanwhile declined in price, but the quantity produced was six fold. Since that time the increase has been much more rapid. The exportation in 1867 amounted to 3,771,000 quintals, valued at $43,875,000. In 1822 the exportation did not exceed 1,0,000. For 1876 the coffee crop was estimated at 5,720,000 quintals, of which four-fifths were exported. Of cotton, 826,688 quintals were shipped in 1868, nearly all to Great Britain; from 1869 to 1874, 1,197,590 quintals, valued at $18,751,384. Jerked beef, salted and dried hides, bones, horns, horse-hair, tallow, tapioca, tobacco, India-rubber, cabinet and dye woods, flour, honey, ipecacuanha, cacao, rum, and molasses were the other exports. For the period from 1839 to 1844 the exports of India-rubber were 861,531 lbs., valued at $119,289; for 1869–74, 12,282,157 lbs., valued at $5,861,760. During the same periods the exports of tobacco increased three fold in quantity, and eight fold in value, though amounting in 1875 only to 6,500,000 lbs., valued at $742,000. For the period 1839–44 sugar exports were 180,773,848 lbs. and their value $5,866,424; for the period 1869–74 337,228,172 lbs., valued at $13,692,208. Between 1869 and 1874, 61,451,372 lbs. of hides were exported, their value being estimated at $5,829,576. The imports of Brazil in the five years ending in 1870 averaged $62,500,000. England furnished cotton and woollen goods, soap, hardware, and coal; France, olive oil, lamp oil, and timber; Germany, linen, iron-work, and arms; and the United States, tea, flour, coarse woollens, and cottons; iron from Sweden, and wine from Spain about completed the list of imports, in addition to some commodities from Portugal. The trade with the United States in the fiscal year 1877-78 was as follows: Imports, chief articles of, breadstuffs, iron and steel, and manufactures of; refined petroleum, lard, and other provisions, cotton fabrics, railway cars, wool and manufactures of; rugs, chemicals, and sundries, valued at $8 686,704. Exports, chief articles of, coffee, sugar, India-rubber, gutta-percha, hides, barks, wool, raw and manufactured, chemicals, drugs, dyes, and medicines, and sundries, valued at $42,972,046. The coffee export was valued at $35,367,992. The average value of the exports from 1869 to 1872 was 186,867,900 milreis, and that of the imports for the same years, 150,423,300 milreis. The imports of Brazil in 1878 were valued at $44,739,805; the exports from Brazil in 1878 were valued at $46,168,000, which was a decrease of $4,3.0,000 as compared with the exports of 1877. Total value of the imports for the fiscal year 1879–80, $86,806,150, an increase over the preceding year; and the exports of the same year, $111,175,8:0, an increase over the previous year. Those amounts include the precious metals, etc. The great bulk of the exportation went to the United States and Great Britain; to the former, most of the coffee; and to the latter, cotton and unrefined petroleum. The total exports to Great Britain in 10 years, 1871–80, were valued at $318,748,515; the imports in the same decade, $328,547,910. The quantity of cotton exported to Great Britain in 1880 was 21:,970 quintals, and the quantity of sugar, 1,484,924 quintals. The chief imports of that decade from Great Britain consisted of cotton fabrics, wrought

and unwrought iron, linen, and woollen manufactures; exceptionally, in 1874 telegraph wire and apparatus to the value of £4,178,275; the importation of such material dwindled down afterwards from year to year. The inter-provincial trade in 1879-80 amounted to $90,950,000.

The following table shows the foreign trade of Brazil in the four fiscal years, 1881-85;

Years	Imports	Exports
	Milreis	Milreis
1881-82	182,251,700	209,851,400
1882-83	185,861,900	195,498,600
1883-84	194,222,500	202,434,800
1884-85	169,431,024	224,300,477
Average	182,941,776	208,021,819

The coastwise trade was as follows:

Years { 1881-82, 1882-83, 1883-84, 1884-85 } Imports and Exports { 158,254,400, 139,497,100, 131,509,350, 120,426,527 } Milreis

The decline in the coastwise trade is explained thus: On the one hand, the increase of the railway traffic; on the other, the decline in value of Brazilian products. In 1885-86, 136,796,600 milreis.

Exportation of Coffee	1885-86	1884-85
From Rio de Janeiro	Bags	Bags
To Europe	1,001,317	1,250,517
To United States	2,430,183	2,538,200
To other countries	111,600	141,666
From Santos		
To Europe	1,160,766	1,676,050
To United States	467,216	465,283
Exportation of Sugar		
From Pernambuco	Tons	Tons
To Europe	11,219	24,639
To North America	39,858	47,703
From Maceio	Bags	
To Europe	56,689	(Total export to Europe 528,689 bags
To United States	90,823	
To coastwise	9,309	
Cotton Exported	Bales 152,389	Bales 134,377
Tobacco Exported		
From Jan. 1 to Sept. 10, 1886.	Seroons 163,901	Seroons 173,744

Sugar occupies the second place among the staples after coffee; but the industry is in a precarious state, the expenses of production, etc., exceeding the receipts. Cotton formerly competed with sugar. The export of cotton declined from 261,762 bales of 450 pounds each, in 1871-72, to 183,700 bales in 1882-83, 130,500 in 1883-84, and 89,400 bales in 1884-85. The export of tobacco has been on the increase, though rather slowly; that of India-rubber is constantly growing, and constitutes the chief source of wealth of the provinces of Pará and Amazonas. Hides are also an important article of export. These six products constitute four-fifths of the total exportation of the empire. The Brazilian imports in the fiscal year 1885-86 were valued at $103,691,240, and the

exports, $115,143,260. The Statesman, of London, gives for imports 197,501,500 milreis, and for exports 194,961,619 milreis. The exports of coffee from Rio de Janeiro in that year were 457,800,000 pounds, valued at 86,827,722 milreis. The extreme prices of coffee for 1886 were $7.56 to $16.74. The principal exports were:

Exports	Milreis
Coffee	142,792,500
Sugar	14,080,200
Cotton	6,475,400
India-rubber	11,432,100
Tobacco	7,274,200
Hides	7,575,000
Cacao	7,169,400
Paraguay maté	2,290,600
Gold dust	1,649,400

Of the imports Great Britain furnished 45 per cent., France coming next with 17 per cent. Of the exports the United States and Great Britain took about one-third each, Germany and France coming after with about one-tenth each.

In 1867 the navigation of the Amazon river was opened to the ships of all foreign nations.

Movement of Shipping in Brazilian Ports.

1875-76	Entered,	3,017	foreign vessels with	85,135 tons
	"	1,770	Brazilian "	12,415 "
	"	7,923	coasting "	97,984 "
1884-85	"	3,751	vessels with	3,619,687 tons
1884-85	Cleared	3,013	" "	2,786,129 "

Besides 5,753 vessels entered, and 5,327 cleared coastwise. The merchant navy of Brazil in 1885 consisted of 190 vessels, of which 82 were steamers.

While the La Plata region was under the Spanish domination commerce made little progress. It then consisted chiefly in hides, wool and other products from the cattle and sheep descended from the stock introduced in the days of the conquest. The hides of that country commanded a high price in Europe, being thoroughly cured. The incoming of French and English settlers in later years greatly increased trade with their respective countries. Great Britain sent out textile fabrics, mostly cotton and woollen, ready-made clothes, iron, ship stores, hardware, tin plates, coal and beer. France began to supply silks and wines. Spain furnished wines and some edibles. Other nations, including the United States, also received a share of the country's business. The trade had become quite large in the seventh decade of this century, as the figures appended farther on will show, the largest consumers of the republic's products being France, Belgium, Great Britain and Germany in the order given; the United States occupying the fifth place. The exports to Germany and France, particularly to the former, have increased. Those to other nations have fluctuated yearly between 1876 and 1882, the United States figuring in this last year for a not inconsiderable amount. In the table of imports Great Britain stands first, France second, the United States third, Germany fourth and Belgium fifth. The imports from Germany, the United States and Great Britain are steadily increasing, while those from Belgium and France fluctuate from year to year. Great Britain is the chief competitor of the United States in supplying the Argentine republic. American manufacturers have been, however, in late years extending their trade in that country. Extensive orders for

American goods, especially machinery and agricultural implements, have been received by establishments in Philadelphia, New York and other cities. A letter now in my possession, dated August 22d, 1888, and of the most reliable character, states that one of the manufacturers of agricultural implements in Pennsylvania, received within a year orders from the Argentine confederation amounting to about $100,000, for all descriptions of American implements and machinery, principally ploughs. A large portion of the former are, however, purchased in Germany and England. The Pennsylvania house enters into direct competition with those nations. There is, the writer of that letter says, "a boundless outlet for our manufactures in South America."

The Argentine republic offers a vast field for the importation of improved breeds of stock—sheep, horses and horned cattle. The auction marts of Buenos Aires are constantly receiving considerable numbers of the best classes of such stock, which generally sell at very satisfactory, and, in some cases, extraordinary prices. Fine trotting horses from the United States have given satisfaction, but there have been too many cases where purchasers have been deceived by sellers foisting on them horses with false pedigrees. The result of this dishonest practice has been disastrous to the further sale of American horses. Hereford cattle have done well, and Durhams, if of good pedigree, would probably do as well, though the tendency is to prefer the former, as they and their crosses are believed to have better hides, and to be better able to live through the winter without shelter. It should be borne in mind that American sheep, horses, and horned cattle must be of prime quality, and have a place in standard books of pedigree. Such, and only such will meet with ready sale at remunerative prices.

Excessive borrowing in late years by the government, and overtrading brought on in 1885–86, a severe financial crisis. The authorized suspension of specie payments by the banks for two years unsettled values, and amid the violent fluctuations of the premium on gold, running rapidly from 10 to 65 per cent., and back again, business was transacted without a fixed basis. But few failures occurred, nevertheless, and those few were of comparatively little importance. Merchants, at the end of 1886, were getting used to a depreciated currency subject to constant fluctuations. Notwithstanding this drawback business continued on the "high-pressure" principle. Sheep farmers profited by the high premium on gold, selling their wool for gold, and paying the expense of producing it in depreciated paper. The government also took advantage of the situation, selling the gold received on account of its foreign loans at a high premium, even 50 cents on the dollar, for paper, and paying for public work with the latter. Meantime, no effort was made toward preparing for resumption of specie payments. The imports, already excessive, continued to increase, while the exports, owing to a bad year, were on the decline; thus, the balance of trade in 1886, as will be shown later, was more greatly than ever before against the republic. The suspension of specie payments by the banks should, under the law

which authorized it, have terminated on the 1st of January, 1887, but Congress extended it indefinitely, or until such time as in the opinion of the executive it should be safe to require them to return to specie payments. The trouble with the banks seems to have been that they had used their reserves to speculate in gold.

Buenos Aires is the centre of an immense trade, an emporium for wool, tallow, hides, etc., as well as for commodities from Great Britain and other countries. There were, in the year 1887, in Buenos Aires city 257 English, and 402 German business houses. The English capital employed in all industries aggregated $121,952,000; the German only reached $16,610,670. The Italians outnumber all other foreigners, and even the Argentines. There were 7,729 Italian firms doing business with an aggregate capital of $150,584,730, and 1,357 Argentine with $241,766,550. As traders and merchants the Spaniards far outnumber the French, the former being 2,223 with $74,731,930 capital, and the latter, 1,870 with $32,340,640. The French monopolize cafés and bazaars, the Spaniards, the more substantial grocery and general supply trade. Jewish merchants are almost unknown in the place. The United States are but little represented, there being but 26 American business concerns with a total capital of about $2,190,000. As regards capital the Argentines stand foremost, the Italians next, the English third, though only sixth in numbers. The Germans outnumber the English, and with much less money do more business. This is because the former act on their own volition, while the latter are subject to the direction of syndicates abroad, chiefly located at Manchester and Liverpool. The Germans are steadily and surely driving out the English, who already feel that they must abandon the field, or wholly change their methods.

The foreign trade of the Argentine republic, according to official returns for the six years 1880-85, was as follows:

Years.	Aggregates.
1880	$103,916,667
1881	113,644,109
1882	121,684,984
1883	140,643,804
1884	162,085,930
1885	176,101,069

The increase in the six years was $72,184,402. The custom house valuation of imports for 1885 was $92,221,969 against $94,056,144 in 1884. The custom house valuation of exports for 1885 was $83,879,100 against $68,029,886 in 1884. The imports of 1885 exceed the exports by $8,342,869 and those of 1886 upwards of $25,500,000. It is certain that the population of the republic is insufficient to consume, without intrenching on her capital, the merchandise which England, France, and Germany with their stagnant trade at home, continue to foist upon her year after year. The Germans have made a systematic effort to increase the sale of their national manufactures, and to divide the wool trade of the republic. The results have been seen in the crisis of 1885-86. The Argentines should have learned prudence from the lesson of 1874-76, when their country passed through a great crisis. At Buenos Aires the volume of trade became so small that the effects of the business depression were visible in the 4,000 deserted houses, in the magnificent and costly stores without occupants, in the empty warehouses, in the barracas, the hotels, the custom house, and even the tramways and railways, all lying idle, and displaying as a writer expressed it "the flotsam and jetsam of the great crisis-wave that had swept over the Plate."

The wool clip of 1885 was the largest ever known in the country. The shipments of wool and sheep skins have been on the increase almost every year since 1876. The value of the wool shipped in 1885 was $35,950,111, and of the skins, $6,297,877, total, $42,247,488, a little more than one-half the declared value of exports for that year. The countries that took the produce were Germany, Belgium, United States, France, Great Britain, Uruguay, etc. The wool shipped to the United States was exclusively the Córdoba, or carpet-wools. No other quality could be sent to the United States because of the export duty, and of the American tariff.

The total trade from 1861 to 1886, a period of 26 years, was as follows:—

Imports	$1,322,649,595
Exports	1,112,490,600
Excess of Imports	210,158,995

The foreign trade of 1885 was distributed to the following countries:—

Germany	$ 15,775,442	France	$ 37,710,024
Belgium	22,347,899	Italy	6,665,960
Brazil	4,376,402	Paraguay	1,631,904
Chili	2,539,380	Uruguay	7,609,566
Spain	5,431,206	Other Countries	
United States	10,570,560	Includ'g West Indies	1,512,111
Grand Total	$ 176,101,069	Grand Total	

The following are the principal articles of import and export, with their value for 1886:—

Imports	Dollars	Exports	Dollars
Textiles and Clothes	24,673,179	Wool	3,711,604
Food substances	12,865,787	Hides and skins	18,066,482
Iron and manufactures	12,292,715	Maize	4,653,421
Drinks	10,691,123	Preserved meat	3,738,820
Wood and manufactures	6,878,167	Live animals	2,442,251
Railway, Telegraph, and other material	5,102,777	Flax	1,825,199
Pottery, glass, etc	4,053,465	Tallow and Fat	1,715,158
Chemical substances	3,697,015	Wheat	1,510,378
Coal, coke, oil, etc	3,221,715	Various	32,171,528
Various	10,932,802		
	95,408,745		69,834,841
Total Imports	117,123,120	Total of Exports	77,418,641

The foreign trade of the Argentine Republic in 1886 was mainly with the following countries, to the following values:—

Countries	Imports from	Exports to
	Dollars	Dollars
Great Britain	33,432,660	10,071,850
France	17,022,088	22,342,183
Germany	8,044,875	6,950,906
Belgium	7,721,817	10,924,737
United States	7,673,284	3,580,406
Uruguay	5,988,080	2,767,616
Italy	4,647,287	2,476,458
Spain	3,717,595	1,166,447
Brazil	2,808,964	1,943,213
Paraguay	1,413,740	419,254
Chile	66,698	2,818,850

The transit trade in 1886 was valued at 11,155,898 dollars, of which 7,558,000 dollars worth was with Bolivia.

Percentage of Trade for Ten Years

As a point of some interest the following table is subjoined, which shows the relative course of trade of the Argentine Republic with each country during the ten years, 1876-85.

Country	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885
Germany	3.9	3.9	4.0	3.9	4.7	6.6	7.9	8.4	9.7	9.0
West Indies	1.4	1.4	1.0	1.6	1.6	1.0	1.3	0.9	0.5	0.9
Belgium	19.0	17.4	15.2	13.3	16.2	15.5	14.1	11.0	13.7	12.7
Bolivia	0.7	0.7	0.4	0.7	0.8	0.5	0.4	0.2	0.2	0.9
Brazil	4.1	5.2	5.0	6.0	4.2	3.9	3.5	2.8	2.3	2.5
Chili	4.7	4.6	3.3	1.6	1.7	1.6	1.3	1.6	1.3	1.4
Spain	3.9	3.7	4.1	3.1	3.5	4.1	3.5	3.6	3.3	3.1
United States	5.2	5.7	6.3	8.2	8.0	7.3	6.6	6.0	7.1	7.1
France	20.5	20.4	23.0	22.0	23.4	23.7	23.5	25.9	24.2	22.0
Italy	5.1	4.0	4.2	4.6	4.5	4.6	3.3	3.6	3.6	3.7
Holland	0.7	0.7	6.0	0.3	0.3	0.4	0.9	0.4	0.7	0.4
Paraguay	1.2	1.4	1.2	1.3	0.8	1.2	1.0	1.1	0.9	0.9
Great Britain	19.5	18.0	19.1	17.0	17.1	17.5	22.3	26.2	23.4	27.4
Uraguay	3.3	5.3	3.3	3.9	4.9	4.6	4.1	4.5	4.3	4.3
All other countries	6.3	7.6	3.3	7.3	3.3	7.5	5.3	3.3	3.3	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

These relative figures show that while there has been a remarkable uniformity in the course of the trade of the Argentine Republic during the last ten years, Belgium appears to be the only country that has decidedly lost her position; and that, while England and France have continued to maintain and even increase their relative ascendency, the United States and Germany, in spite of the annually increasing bulk of the total trade, have shown quite a regular progression of increase in their percentage.

Exports of Cereals in Ten Years.

Year	Wheat	Flour	Maize	Linseed
	Kilograms	Kilograms	Kilograms	Kilograms
1878	109,611	2,919,793	19,064,044	104,279
1879	7,547,438	1,603,045	29,521,317	246,034
1880	25,669,317	1,428,046	15,012,015	957,999
1881	1,165,628	1,287,396	25,052,189	6,394,518
1882	157,078	543,779	107,327,155	23,351,294
1883	1,705,292	4,844,385	18,634,351	23,061,736
1884	60,754,677	3,743,389	113,710,088	33,991,950
1885	108,499,228	7,447,077	197,859,612	69,426,124
1886	37,864,413	5,262,222	231,660,300	37,689,967
1887	237,865,925	5,386,448	361,456,705	81,183,742
Totals	481,588,607	34,470,580	1,117,318,776	276,407,923

The value of the exports for the years 1886 and 1887 exhibits astonishing results:

Article	1886		1887	
	Kilograms	Dollars	Kilograms	Dollars
Wheat	33,864,417	1,510,388	237,865,925	9,514,637
Flax	37,689,969	1,825,199	81,183,752	4,059,187
Maize	231,650,300	4,663,421	361,457,705	7,229,154
Peanuts	769,197	30,747	3,367,300	134,696
Turnips	2,142,944	85,709	940,821	37,633
Various	3,190	945	132,785	5,307
Total		8,106,399		20,980,617

It is understood that the Welsh colony, at Chubut, Patagonia—180 persons who settled there in 1865—grow upwards of 200,000 bushels of wheat annually.

Another commercial resource of the Argentine republic, which is already assuming proportions, is that of shipping frozen meat to Europe. The exports of frozen mutton in 1887 aggregated 966,000 carcasses, weighing about 60,000,000 pounds.

In 1886 there entered at the Argentine ports 11,015 vessels of 3,515,290 tons, (6,288 being steamers), and cleared 8,243 of 3,158,889 tons (5,546 steamers). Of these vessels 80 per cent. of the tonnage was British, and the same proportion national, 16 French and 7 Italian. The home or river navigation in 1886 comprised 24,801 vessels of 2,636,454 tons entered, and 25,464 of 2,587,902 tons cleared. The French recognizing that greater facilities for trade with the Plate region were required, recently established two new monthly lines, in addition to the three regular lines previously running from Marseilles to Buenos Aires and Motevideo. This gives seven departures per month from France for the Argentine republic.

Interior Navigation.—The trade on the rivers La Plata, Uruguay, and Paraguay, and their several affluents has been from year to year assuming larger proportions, as may be seen in the following tables:

Class	Arrivals			
	1884		1885	
	No.	Tons	No.	Tons
Sailing Vessels...	16,899	554,453	18,011	675,261
Steamers	6,884	1,875,222	8,118	2,276,851
Total	23,283	2,429,675	26,124	2,952,112

Class	Departures			
	1884		1885	
	No.	Tons	No.	Tons
Sailing Vessels ...	18,057	644,708	19,766	734,089
Steamers	6,929	1,884,066	8,072	2,819,681
Total	24,986	2,478,774	27,848	3,058,770

It will thus be seen that the total movement was 48,269 vessels with 4,908,449 tons, in 1884, against 53,972 vessels with 6,005,882 tons, in 1885. In 1880, the percentage of steamers was 62, of sailing vesels 38; the increase of the former has been gradual since, until 1885, when there were 77 per cent. of steamers, and 23 per cent. of sailing vessels. At this rate, sailing vessels, which were mostly small schooners, will be superseded by steamers.

Of the river navigation 41.6 per cent. belonged to Buenos Aires, 25.7 per cent. to Rosario; 13.9 per cent. to Santa Fé, and 8 per cent. to Paraná; the balance to smaller river towns. Of the vessels engaged in the river trade, 46.1 per cent. wore the Argentine flag; 32.9 per cent. the French flag; 10.2 per cent. the English flag; 2.5 per cent. the Uruguayan flag; 2.3 per cent. the German flag; 1.7 per cent. the Italian flag; and 4.3 per cent. the flags of other nations.

Foreign capitalists were largely investing in existing lines of steamers, and having new ships built in England. Its new craft were to be after the style of Mississippi River boats, flat-bottomed, and with the machinery on deck; in order that they may also navigate the smaller rivers and affluents of the Paraná, where smaller towns and commercial centers of new agricultural settlements were springing up.

The movement of internal trade by the river vessels in 1885 compared with 1884 as follows:

Years	Produce of the country	Imported merchandise	Total
1884	$24,615,401	$20,689,475	$44,304,876
1885	17,556,491	31,382,385	48,938,876

A gain of about $4,500,000 in the year.

The chief articles, produce of the country, which made up the shipments were liquors, sugar, lime, vegetable black, jerked beef, meat extracts, wheat, eggs, soap, wood and fuel, linseed, woods, corn, peanuts, fence posts, oranges, potatoes, limestone, pickets, cheese, tanned hides, and yerba maté.

In the republic of Uruguay American and English manufacturers have tried to maintain agencies, but finding that there was not business enough to sustain them now deal only with local distributors. The American consul at Montevideo, in an official report, lays much stress on the necessity for a careful packing and dispatch of goods, for prompt dealings and exactness in business, and catering to the habits and tastes of the purchasers. The trade of Uruguay, as well as that of all South America, is worth having, and deserves every honest effort to secure it. The best evidence of its value is shown in the pains taken by the great maritime nations to control it. The United States should secure the better part of it. Germany is gradually superseding England, and supplies more than one-half the woollen and linen goods, with a fair proportion of cutlery, steelware and hardware.

All sales are on credit, five and six months or more, the only goods sold to arrive being such as will not bear the expense of warehousing. Other imports are mostly landed in bond, and taken out for consumption in Montevideo, a city with a very extensive local and transit trade, or to be reshipped to ports on the rivers Plata, Paraná and Uruguay, or to the coterminous province of Rio Grande in Brazil. Any attempts to force sales will diminish profits. Landing charges in Montevideo are lower than in Buenos Aires. The chief articles of export are cattle, salted, dried and preserved meat, tallow, fat, hides and sheepskins, wool and wheat flour. Among the exports are included about $2,500,000 worth of Liebig's extract of meat, to prepare which as many as 800 head of cattle are slaughtered daily at Fray Bentos during the season. From 60 to 80 vessels are employed in conveying the product to Europe every year. From Colonia is also exported a large quantity of frozen meat. The company which prepares the meat in that form kills about 500 animals per day. The total number of beasts slaughtered in 1880 exceeded 670,000. Jerked beef (tasajo) is an article of general consumption amongst the negroes of Cuba, Brazil and other parts. The country also exports an artificial guano made from the refuse of slaughtered animals. In 1872 as many as 372,500 tons were shipped, and the demand has greatly increased since that year. The imports are chiefly liquors of various kinds, articles of food, textiles, raw materials, machinery, coal, etc. Nearly the whole foreign trade of the republic passes through Montevideo.

The exports to the United States in 1886 exceeded $7,500,000, having doubled in four years. In the five years, 1866-70, the exports to England were $7,250,000, and the imports from the same country $5,000,000. France had a good share of the trade, and so had the United States, Holland, Hamburg and Bremen. The following figures give the business of the three years to which they refer:

	1872	1873	1874
Imports.....	$19,467,182	$21,075,446	$16,600,000
Exports.....	15,499,056	16,301,772	16,002,000
Totals.....	$34,966,188	$37,377,218	$32,602,000

The following table sets forth the trade of the years 1880-1886.

Year	Imports	Exports
1880.....	$ 18,328,225	$ 19,752,201
1881.....	17,918,884	20,229,512
1882.....	18,174,800	22,062 930
1883.....	20,322,300	25,221,660
1884.....	24.550,000	24,759,480
1885	25,275,476	25,253,086
1886.....	20,194,655	23,811,986

The following figures show the trade in 1886 with the several nations with which Uruguay mainly deals.

Countries	Imports from	Exports to
Great Britain.....	$ 5,610,784	$ 4,983,765
France	3,410,884	2,597,744
Germany.....	2,098,809	356,467
Spain.....	2,015,066	251,816
Italy.....	1,492,102	469,714
Brazil	1,486,983	4,481,240
United States	1,246,819	2,719,065
Belgium.....	861,937	3,791,032
Argentine.....	517,562	1,156,739

The following are the various classes of exports for 1885 and 1886.

	1885	1886
Living Animals.....	$ 762,255	$ 656,246
Animal products.....	23,462,518	21,735,255
Agricultural products	533,797	976,041
Other products.....	213,904	393,963
Various products.....	80,562	50,566
	$ 25,253,086	$ 23,811,986

The principal animal products exported in 1886 were:

Dried and salted meat	$4,464,500
Extract of meat	1,242,287
Hides	6,303,120
Wool	5,747,364

The principal agricultural product was wheat flour, $670,514. Of the total imports in 1886 liquors of various kinds were valued at $3,806,856; articles of food, $4,416,865; textiles, etc., $8,764,089; and raw materials, machinery, etc., $6,085,653.

The trade of Uruguay with Great Britain in 1882-86 was as follows: Exports, $15,866,100; imports, $34,930,820. The imports from Great Britain in 1886 were: Cotton goods, $2,467,685; woollen goods, $863,030; coal, $443,645; wrought and unwrought iron, $846,895; and machinery, $149,230. The United States treasury report makes a comparison of the trade of Uruguay in 1870 and 1886 as follows:

Year	Imports	Exports
1870	$15,207,813	$12,954,622
1886	20,195,000	23,812,000

Movement of Shipping at Montevideo.

Year		Sailing vessels	Tons	Steamers	Tons
1880	Entered	692	266,062	384	528,331
	Cleared	493	190,366	378	522,811

Craft of all kinds engaged in the coasting and river trade, entered in 1880 to the number of 2,906 with 556,887 tons, and cleared to the number of 3,101 aggregating 644,508 tons. In 1886, 1,249 vessels with 1,282,962 tons entered Montevideo, and 1,161 vessels with 1,221,223 tons cleared, over 60 per cent. of the tonnage being English. In the river and coasting trade 3,326 vessels with 1,163,283 tons entered, and 3,419 vessels with 1,189,494 tons cleared.

Prior to the establishment of Doctor Francia's dictatorship, with its jealous and stringent exclusiveness, Paraguay exported yerba maté, timber, products of the sugar-cane, cotton, tobacco, hides, etc. She supplied Buenos Aires with 8,000,000 pounds of maté, and 1,000,000 pounds of tobacco, besides cotton, sugar, molasses and rum. These commodities, besides coffee, cacao, corn, rice, indigo and manioc, are staples of the country, to which must be added the products of the forests, timber, dye-woods, medicinal plants, resins and gums. Immense swarms of wild bees supply honey and wax. The principal imports are linen, silk, cotton and woollen fabrics, articles of food, liquors and wines, coffee, sugar, etc.

The foreign trade of 1876 was as follows:

Value of imports	$657,466
" exports	392,887

Of the imports about 75 per cent. come from Great Britain, and the rest from continental Europe, chiefly Germany; the total value of imports in 1879 was $956,000, and in 1880, $1,080,000, while that of exports in the same years was $1,582,000 and $1,163,000 respectively. Most of the imports of Paraguay come through Brazil, or the Argentine republic. The chief article of trade is the yerba maté or Paraguayan tea, made of the leaves of the Ilex Paraguayensis tree, dried and reduced to powder, which is exclusively consumed in all the states of South America. A very favorable report from two consignments of

the yerba sent to Italy encouraged the belief that a large market might be opened there for that product. The value of the maté exported in 1882 was $964,800; in 1884, $729,351; in 1885, 616,573; the other chief exports being tobacco, in 1881, $658,650; in 1882, $410,380; in 1884, $248,960; in 1885, $428,846; and hides, $249,584. The total exports of 1881 amounted to $1,928,545; in 1882 to $1,650,676; in 1883 to $1,766,456; in 1884 to $1,572,297; in 1885 to $1,660,526, and in 1886 to $1,571,000. The imports were in 1881 $1,204,465; in 1882, $1,320,125; in 1883, $953,076; in 1884, $1,488,130; in 1885, $1,476,596; and in 1886, $1,621,000. The chief imports were textiles, valued at $596,564 in 1884, 85 per cent. from Great Britain; foods and drinks, $384,524. About 48 per cent. of the total imports come from Great Britain. The United States treasury report thus compares the trade of Paraguay in 1870 and 1886:

Year	Imports	Exports
1870	$1,000,000	$ 954,000
1886	1,621,000	1,571,000

There is good reason for asserting that Paraguay, in the course of a few years, will regain her position among the states of the Plata.

There were in 1888, three lines of steamers plying between Buenos Aires and Asunción, each of which runs one steamer weekly. There is another line of steamers plying between Buenos Aires and Montevideo, whose ships call at Asunción. Two hundred and sixty-four vessels, aggregating 34,859 tons, entered Asunción in 1881.

Nature has denied to Bolivia nearly all facilities for trade; a line of precipitous mountains and a barren desert cut off her habitable parts from the sea-coast. The exports are limited to the precious metals, nitre, cotton, woollen fabrics, and the wool of the vicuña, alpaca, and llama. The trade is almost wholly in the hands of Germans.

The chief outlets for Bolivian trade are through Chilian, Peruvian, and Argentine territory. The most accessible port is Arica, involving a land transit of 240 miles from La Paz to Tacna, which has a railway connection with Arica, 40 miles distant. The traffic through this route has in late years been limited to the transportation of a portion of the mineral products of Oruro, and to mule back service from La Paz to Tacna, usually accomplished in about five days. The great bulk of trade from La Paz is on steamers across Lake Titicaca, and through Peruvian territory, and on the Puno-Arequipa railway to Mollendo. A third and longer route is through Argentine country to Buenos Aires. Pursuant to a treaty, Bolivia having exempted from duty goods for the Argentine republic passing through her territory, the products of the departments of Potosí, Chuquisaca and Tarijá, mostly minerals and metals, go through the Argentine republic in preference to Chili. A new route is that of the National Bolivian Navigation company up the the Amazon and its tributaries through Brazil. Political reasons caused this round-about way of transportation, shifting trade from the Pacific to the Atlantic, and decreasing business on the coast of the former. A railway connecting La Paz with the coast, through Oruro to Tacna, will recover the trade for the Pacific. The staples of exports of Bolivia are calisaya bark, cinchona bark, copper and copper ore, tin, silver and silver ore, nitre, guano, leather, India-rubber, gums, cacao, coffee, etc. The imports consist of cotton, woollen and silk goods, edibles, wines and liquors, iron, machin- etc.

The following table furnishes the values of Bolivian imports and exports in several years:

Years.	Imports.	Exports.
1870	$5,079,840	$ 7,561,825
1875	5,750,000	5,000,000
1876-1880	2,505,025	10,128,950
1881	531,810	1,638,905
1884	6,820,000	9,745,000
1885	6,150,000	10,463,845

Two-thirds of the exports consist of silver. According to official report there were exported from Bolivia in 1882 bullion, bars of silver, and other metals to the value of $15,728,150 or thereabouts. In 1883 Bolivian metals to the value of $16,253,000 were exported through the custom house of Buenos Aires, including over $15,000,000 in silver. In 1886 the total Bolivian exports by way of Buenos Aires were $6,237,850 of which $5,710,080 were silver. The total imports by Buenos Aires in that year amounted to $1,320,425 whereof $849,800 was for textiles. Nearly 50 per cent. of the imports come from Great Britain, mainly through Arica in Peru. Considerable trade is also carried on with Germany and France. Bolivian trade with the United States is insignificant and American goods seldom find their way to that country. The total value of the merchandise sent to and received direct from Great Britain in each of the five years 1882 to 1886, appears in the subjoined table.

Years.	Exports to G. B.	Imports from G. B.
1882	$1,894,385	$453,015
1883	1,815,090	415,235
1884	1,233,185	271,825
1885	1,000,230	221,380
1886	958,095	267,970

The chief exports to Great Britain are copper ore and regulus, and cubic nitre. In 1886 the value of the experts of copper, both ore and regulus, amounted to $163,330, and of nitre, $538,505. The British imports in the same year, were cotton goods, $11,400; iron, $63,445; machinery, $57,670; apparel and haberdashery, $7,440.

The markets of Perú mainly receive their supplies from Europe; but some branches of American manufactures are preferred, and the demand for them increases. The more valuable machinery in the sugar estates comes from the United States. Other agricultural machinery is imported on a limited scale, and farming implements of American make daily gain ground. There is a considerable trade in sewing machines, furniture, canned goods, kerosene, lard, cordage, sail-cloth, perfumery, saddles and harness, trunks, billiard tables, street-car plant, and what is comprised under the general name of Yankee notions. Some manufactories and a number of breweries of Lima and Callao obtained their machinery from the United States. In the line of silk, cotton, linen, and woollen goods Europeans control the Peruvian markets. There is, however, some consumption of American shirtings and osnaburgs. Nearly all the planking and dressed timber consumed in Perú comes from Oregon. Lima is an important emporium for the produce of the country. The staple articles of export from Perú are guano, cubic nitre, sugar, wool, ores and cotton. The wool for exportation is from sheep, llama, alpaca, and vicuña.

But little of the llama's, which is the most common, is exported. The wool of the alpaca and vicuña is much prized, and often sells at $70 per quintal. The common description averages $30.

The value of exports from Perú to Great Britain in 1870 amounted to nearly $25,000,000, an increase of nearly $15,000,000 over 1802. The imports from Great Britain in the former year were valued at $8,800,000. The aggregate imports and exports of Perú in 1866 were about $60,000,000. Great Britain alone took from 1845 to 1870 four million tons of guano, valued at $235,000,000. The latest official statistics published are those of 1877, which showed the imports to have been $24,179,095, and the exports—exclusive of nitre and guano—$31,634,275, and together with those staples, $52,497,747. The exports in 1875 had been about $37,000,000, the chief items being guano and nitre, while the imports were somewhat larger. In this year $5,342,850 worth of guano and $8,965,550 of nitre were shipped to Great Britain. Both articles were government monopolies. The exportation of nitrate from 1874 to 1877, as per official data, at an average of $3 per hundred weight, amounted to $63,431,565. The average exportation of guano in the ten years ending in 1877 is estimated at 400,000 tons per year, valued at $23,000,000. The imports of merchandise in 1879 were valued at 28,000,000 soles, and in 1880, the country being at war with Chili, only 15,000,000 soles. The exports of 1879 were about 44,600,000 soles, and in 1880 only about 25,000,000 soles. The imports of 1884 were valued at 11,064,474 soles, chiefly provisions, 2,688,677 soles; cottons, 1,976,581 soles; and linens, 1,176,113 soles; and the exports at 7,958,625 soles. The commercial intercourse between Perú and Great Britain is shown in the following table for each of the years from 1882 to 1886.

Years	Exports from Perú	Imports of Brit. Produce
1882	$13,424,270	$4,923,335
1883	11,252,330	3,672,335
1884	10,414,170	5,404,275
1885	9,424,260	3,520,755
1886	8,320,605	4,320,335

After Chili annexed to her territory the Peruvian province of Tarapacá, containing on its coast the guano producing fields, the exports of this fertilizer from Perú to Great Britain rapidly decreased, but they revived in 1886. The export of guano to that country in 1878 had been 127,813 tons, valued at $7,347,025; in 1884 it was only 14,372 tons worth $607,025; in 1885, none; in 1886, 27,863 tons, valued at $1,034,870. The deposits on the Chincha islands became exhausted in 1872. Since that time those on the Lobos, Macabí, and Guañape islands have been worked. It was estimated that there remained 600,000 tons in the north, and 1,800,000 in Tarapacá. Cubic nitre is another article exported in large quantities to Great Britain. The following table shows the exportation of 1877–1886.

Years	Tons	Value
1877	1,247,909	$4,205,370
1878	1,667,521	6,193,125
1879	879,103	3,014,360
1880	645,937	2,462,105
1881	724,848	2,670,745
1882	1,482,522	4,880,080
1883	1,717,605	4,850,705
1884	1,622,743	3,925,000
1885	1,794,750	4,481,370
1886	1,112,819	2,764,750

As Chili now holds Tarapacá, which also contains large nitre beds, the exports of this article have decreased considerably. The exports of unrefined

sugar to Great Britain were quite small previous to 1869; the value of such exports rose from $2,560,560 in 1874 to $6,903,110 in 1879; fell to about $3,500,000 in 1882; $2,354,095 in 1883; $1,582,950 in 1884; $2,212,455 in 1885, and $1,691,905 in 1886. Other staples of exports have also experienced fluctuations. The value of exports to Great Britain in 1886 was, of sheep and alpaca wool, $1,181,790, about $350,000 less than in 1885; of raw cotton, $956,220, a large increase over 1885; of copper, wrought and unwrought, $85,655 against $1,784,480 in 1878, $88,165 in 1883, and $232,795 in 1885. The imports from Great Britain into Perú of cotton goods, were valued at $2,189,880 in 1884, and $1,873,495 in 1885; of woollen goods, $900,900 in 1884, and $757,580 in 1885. The exportation of silver ore to England and Germany has largely increased since 1884, and the work now carried on seems to indicate that the rich mines of Perú will soon be largely developed.

The average number of vessels entering and leaving Callao, down to 1870, exceeded 2,000 annually. The merchant marine of Perú at the end of 1877 consisted of 8 steamers with 1,768 tons, and 139 sailing vessels with 49,860 tons.

After obtaining independence Chili had the good fortune to secure a stable government sooner than the sister republics of South America, and hence her commerce has steadily developed. Europeans came, and large quantities of merchandise were imported through Valparaiso, which at once became an entrepôt of commerce, whence Lima in Perú, and the Mexican Pacific ports received supplies. Bolivia was also supplied from Valparaiso overland. The Chilian foreign trade fell almost entirely into English, American, and French hands. In 1809 only nine vessels entered Valparaiso; in recent years the number of arrivals averages upwards of 2,000 annually. The products of Chili consist of cereals, sugar, guano, nitre, cotton, wool, tallow, hides, silver and tin ores, timber, indigo, fruits, vegetables, sarsaparilla, and copper ore, both unrefined and regulus, and some manufactures. Of these the English have chiefly taken copper ore, hides, guano, nitre, wheat and barley, sugar, chemical products, cotton, and wool. The imports into Chili consist mostly of European produce, manufactures, and colonial products. Tea and silk are brought from China, but the former has been largely supplanted by yerba maté or Paraguayan tea. The discovery of gold in California and Australia aided to develop Chilian trade. Most of this trade is with Great Britain; the next in the list being France, followed by Germany, the United States, and Perú. There is in Chili a large and ever-widening field for American manufactures. But American merchants are particularly recommended to send there proper agents—not of the drummer class—to promote the introduction and sale of the tools, machinery, and fabrics in which American manufacturers excel. There should be established in Chili, says Mr. Romeyn, the American consul at Valparaiso, some genuine representative firms who would always have on hand a stock of the best goods, especially in the hardware and machinery lines, ever on the alert to make valuable suggestions to home manufacturers in order to introduce new or improved articles suited to the requirements of the country. This is the way the English built up their trade with the countries of Spanish America.

The total value of the exports from 1844 to 1883 was $1,076,797,569, and of the imports in the same period, $928,858,184; the excess in the value of exports being $147,939,385. Out of the total foreign trade, $2,005,655,753, England's share was 57 per cent. But the balance of trade, owing to failure of wheat crops, and a decline in the price of copper, was against Chili every year be-

tween 1874 and 1877 inclusive, causing a great diminution in the amount of the country's specie through its exportation to balance accounts abroad. It was known that only $5,000,000 in bullion and coin remained, and the consequence was a great depression in financial and commercial circles. The total value of the annual trade with Great Britain, between 1873 and 1876, averaged $10,000,000; with Perú, $8,000,000; Bolivia and Germany about $5,000,000 each; with the United States at least $3,700,000. The trade with the United States in the 20 years, 1857-76, was as follows: Exports, $30,491,488. Imports, $42,795,486. Annual average of imports, $2,139,774, and of exports, $1,524,574. The total value of metals exported from the province of Atacama in 1875 was $16,907,163, of which $13,968,658 was in copper, and $2,938,510 in silver. For the 32 years between 1843 and 1875, $89,131,706 worth of silver was exported from that province, the product increasing from $1,000,000 in 1843 to $5,356,160 in 1875. For the same period the value of all minerals exported from this province was $240,000,000. The distribution of Chilian trade in 1877 was as follows:

Countries	Imports from	Exports to
Great Britain	$ 9,358,855	$ 15,441,778
France	5,846,008	3,414,835
Germany	3,892,242	1,252,290
Perú	2,241,299	8,422,722
Argentine Republic	3,057,895	851,402
United States	1,907,345	915,905
Various	8,297,679	1,430,004

England took of copper upwards of $10,500,000 in 1880, and $7,893,740 in 1881; next was sugar, nearly $500,000, and wool to the value of about $650,000 in 1880, and $.85,045 in 1881. Of the imports from Great Britain, cotton fabrics alone amounted to $4,680,545 in 1880, and $5,977,600 in 1881. The movement for 1884-6 is subjoined.

	1884	1885	1886
Imports	$ 52,886,846	$ 41,218,725	$ 56,921,890
Exports	57,766,4.0	51,490,286	50,792,415
Total of imports	151,026,961	.....	.....
Total of exports	160,049,151	.....	.....
Excess of exports	9,022,190	.....	.....

The subjoined data are on the leading imports and exports in 1884 and 1885: Imports, edibles, $11,871,359 in 1884, and $9,545,829 in 1885; silk, linen, cotton, etc., fabrics, $11,316,656 in 1884, and $8,118,162 in 1885; raw animal and vegetable materials, etc.; $5,452,607 in 1884, and $4,859,826 in 1885; instruments and industrial objects, $5,494,729 in 1884, and $4,540,351 in 1885; clothing and objects of general use, $3,466,706 in 1884, and $2,273,924 in 1885; domestic articles, $3,566,965 in 1884, and $2,707,820 in 1885; railway and telegraphic requisites and horses, $2,723,935 in 1884, and $1,343,795 in 1885; wines, liquors and beer, $1,785,717 in 1884, $1,006,686 in 1885, and so on. The exports were agricultural products, $7,824,262 in 1884, and $7,9.6,247 in 1885; mineral products, $46,434,284 in 1884, $42,043,404 in 1885; manufactured products, $222,120 in 1884, $86,797 in 1885; re-exported merchandise, $573,711 in 1884, $619,103 in 1885, and so on. The value of the nitre exported in 1884 was $27,344,085, and in 1885, $23,215,802; of copper in 1884, $12,657,539, and in 1885, $9,887,528; of silver in 1884, $2,993,735, and in 1885, $6,805,298. The United States treasury report makes the following comparison:

Year	Imports	Exports
1870	$38,640,010	$28,615,020
1885	40,096,000	51,259,000

There is, besides, a large transit and coasting trade. The trade of Chili was divided among the leading countries in 1886 as follows:

Countries	Imports from	Exports to
Great Britain	$ 15,505,558	$ 32,883,497
Germany	7,116,525	3,221,770
France	6,480,861	2,538,442
Argentine Rep	3,233,283	.....
United States	2,721,265	1,626,773
Perú	2,645,316	1,710,567
Brazil	805,847	.....

According to the British board of trade returns for 1882-86, the exports from Chili to Great Britain aggregated £14,285,470, or about $71,177,350; and the imports, £10,162,642, or about $50,813,210. In 1886 the copper exported to Great Britain amounted to $5,810,865; wheat and barley followed with $3,491,285; next sugar, $283,225; chemical products, $160,060; raw cotton, $168,450; nitre, $357,280; and wool, $95,015. In the same year the imports of cotton fabrics amounted to $3,808,770; of woollens, $991,525; and iron, wrought and unwrought, $1,315,680; hardware, $252,555, machinery, $211,915.

Detailed statement of vessels entered at all the ports of Chili in 1877 and total movement of tonnage in the foreign and coasting trade.

Foreign Trade

Nationality	Sailing Vessels	Tonnage	Steamers	Tonnage
English	309	177,635	500	783,688
French	60	30,018	.....	.....
German	67	27,627	44	49,819
Italian	11	7,085	.....	.....
American	57	22,508	4	7,443
Nicaraguan	52	20,277	.....	.....
Guatemala	31	12,169	.....	.....
Peruvian	24	10,509	1	1,768
Chilian	44	11,854	208	159,733
Various	39	17,069	.....	.....
Totals	694	336,995	857	1,002,446

Coasting Trade

	Sailing Vessels	Tonnage	Steamers	Tonnage
English	181	89,620	1,043	1,342,555
French	9	7,531	1	21
German	39	15,750	36	39,936
Italian	54	7,539	.....	.....
American	206	24,938	2	1,280
Nicaraguan	383	112,264	.....	.....
Guatemala	354	104,042	.....	.....
Peruvian	66	26,111	.....	.....
Chilian	683	111,906	1,045	516,929
Various	28	10,029	50	11,140
Totals	2,003	509,760	2,182	1,911,861

The maritime movement at Chilian ports in 1884 and 1885 was as follows:—

1884—Vessels arrived, 9,833 with 8,455,072 tons
1884—Vessels sailed, 9,938 with 8,573,694 tons
1885—Vessels arrived, 9,090 with 7,875,399 tons
1885—Vessels sailed, 8,247 with 7,916,797 tons

These figures include steamers and coasters.

The Chilian merchant marine consisted in May, 1886, of 173 vessels with 77,285 tons, of which 37 were steamers, with 18,525 tons. In that year 14,972 passengers arrived at Valparaiso by sea, and 12,558 departed; not one of those passengers was conveyed under the American flag. The English, Germans, French and Italians have lines of steamers, and the Chilians support a well appointed coasting line. There is no American line, notwithstanding that the Chilians would probably give Americans the preference, as evidenced by the fact that they show their preference for the commanders of the South American Steamship company's boats, who are, almost without exception, Americans. Were there well appointed American steamers plying regularly to Chilian ports, American trade would undoubtedly follow in their wake. Under present conditions freights from New York to Chili via Panamá are about thrice as much as from France or England. About the middle of the year 1888 a Chilian line of steamers was established between Valparaiso and Panamá, of which the "Mapocho" was the pioneer vessel.

The West India islands supply a large portion of the sugar, molasses, rum and tobacco consumed in Europe and the United States. They contain but little uncultivated land, and hopes are entertained that with the completion of the Panamá ship canal, a future of unexampled prosperity will be assured, as they will be in the direct highway of the world's trade. There are about 65 islands, of which some 54 are inhabited, the rest being bare rock. The produce is similar in all the islands, though Cuba has a monopoly of tobacco culture and cigar manufacture, the tobacco of Vuelta Abajo taking the supremacy in all the markets of the world.

The commerce of the Dominican republic is small, but gradually on the increase. Most of her foreign trade is carried on through Santo Domingo and Puerto Plata, but some portion passes through other ports recently opened. The bulk of it is with the United States, England, France and Germany. The chief articles exported are lignum vitæ, logwood, mahogany, coffee, sugar, fustic, tobacco and cacao. The export of mahogany has decreased in late years, but that of sugar has increased. It is rumored that some Santo Domingo coffee finds its way clandestinely into Cuba every year. The imports are provisions, wines, liquors, cotton, linen, silk and woollen fabrics, hardware, machinery, fancy articles and many other things.

The imports for 1869 were valued at $897,081, and the exports at $376,080; in 1881 the imports were $1,761,815, and the exports $1,691,075; in 1883 the imports were set down at $3,142,102, and in 1885, according to official reports, $2,104,869, and the exports for the latter year, $2,544,403. Twenty-six thousand tons of sugar were exported in that year, and 347 foreign vessels with 190,856 tons entered the ports of Santo Domingo and Puerto Plata, 60 of which with 7,872 tons were British.

The smaller portion of the island of Santo Domingo, known as the republic of Hayti, which was ceded to France in 1677, became a great coffee-exporting country. It is recorded that in 1774 its exports of coffee amounted to 353 cargoes, valued at 82,000,000 livres; and those of sugar to 147,508,000 pounds, to which must be

added indigo, cacao, roucou, cotton, leather, timber, silver and other metals. The republic might have become very wealthy, but that its commercial prosperity has been checked by constant political disturbances. Its trade is mainly with Great Britain, France and the United States. To the articles of export above stated may be added dye-stuffs, tortoise-shells, etc. Among the chief imports are cotton, linen, silk and woollen goods, articles of food, wines, liquors of all kinds, hardware, machinery, etc. Lately canned provisions from the United States have been in much demand in the Haytien markets, the prices being lower than those for European goods, and her meats, fruits and vegetables are highly appreciated. Other articles which meet with ready sale are codfish, mackerel, wines, pork, beef, lumber, ice, soaps, oils for painting, illuminating, etc., building materials, wheelbarrows, carriages, glassware, crockery, prints, denims, shirting, sheeting, nails, hardware and straw hats. American shoes, especially for children, also find a ready market. The finer grades for ladies and gentlemen cannot yet compete with those of French manufacture. In the last three or four years the trade in American cotton goods, particularly prints, has been steadily growing, and they seem to be gaining a firm foothold, whereas in former years English fabrics had a monopoly. This branch of American manufactures has a fair prospect in the near future, and a well directed effort may secure this outlet for American cotton fabrics. Most of the carriages used are imported from the United States.

The imports in 1869 were valued at $2,696,513, and the exports at $4,413,331. The exports of the fiscal year 1871-72 exceeded $7,500,000. Imports for the year ending September 30, 1872, were $6,860,408, probably one-half or more from Great Britain. From 1875 to 1877 they averaged yearly about $6,500,000. In 1877 the importation of cotton fabrics from Great Britain was $1,261,630, and of linen goods $270,490. In 1881 the imports were of the value of $7,283,620. The total imports in 1881 were valued at $7,283,620, and the exports at $6,240,460; the United States had 45 per cent. for their share of the year's trade, and Great Britain 40 per cent. The imports in the fiscal year ending September 30th, 1886, amounted to 4,965,258 piastres, and the exports to 7,555,995 piastres, the chief staples exported being 58,075,733 pounds of coffee, 3,930,445 pounds of cacao, besides mahogany, logwood and 2,087,653 pounds of cotton; most of which went to France. In the following year the imports were 4,765,640 piastres, and the exports 7,281,855. The exports to the United States were, logwood, coffee, cacao, honey, goatskins, hides, mahogany, beeswax, cotton-seed, orange peel, old metal, tartle sheel, fustic, lignum vitæ, rags, pickled limes, and sugar. In the fiscal year 1885-86 763 vessels entered Haytian ports with 825,256 tons, and 785 sailed with 726,861 tons.

Of the Spanish colonial possessions Cuba and Porto Rico are, with the Philippine islands, considered the most valuable. Before 1762 their inhabitants were not allowed to hold intercourse with foreigners for purposes of trade, but toward the end of that century the crown was more tolerant, and we see it recorded that in 1792 the Cuban trade aggregated $1,904,339; in 1799 a trifle over $2,000,000; in 1805 and 1810 between $10,000,000 and $11,000,000 each. From 1818 commerce with foreign nations was formally established, and prosperity rapidly followed, hastened as it was by the settling in Habana and other centres of many wealthy Spaniards from Mexico and South America, after those dependencies seceded from the crown. The mother country was herself greatly benefited by the change in her commercial policy, for her

own trade with Cuba assumed larger proportions from year to year until in 1854 her exports to this colony alone exceeded those to all America in 1792.

The trade of Cuba with the mother country is entirely in the hands of natives of Spain, who also control most of the retail business. The foreign trade is to a large extent in the hands of foreigners—English, Germans, French, Americans and a sprinkling of other nationalities. Most of the wholesale business is on a cash basis, but in some instances, and in the retail trade in many instances, three to six months notes of hand are accepted in payment. Business is usually transacted between seller and purchaser without the intervention of a third party, except in the sales by planters to merchants of sugar, when a broker nearly always intervenes. In the sale of exchange also a broker is often employed. There is a collegiate body known as the colegio de corredores, composed of brokers appointed by the crown, who either personally, or through their representatives (dependientes), intervene in the mercantile transactions above referred to. These dependientes are usually persons who have hired the office. There are others, the corredores intrusos, who act as brokers. This is illegal, but all efforts on the part of the colegio to do away with such intruders have been unavailing.

The Spanish government has invariably protected the products of the mother country against those of foreign nations by means of differential duties. Thus, on American flour, which might compete with that from Santander, $10.62 per barrel was levied, while the Spanish article only paid $2.50 per barrel. This was of course equivalent to a prohibitive duty.

Monopolies, such as are called in the United States trusts, have ever been in existence, in the form of associations of dealers in certain articles of large consumption, such as dealers in flour (harineros), in jerked beef, etc., (tasajeros), in potatoes, apples, onions, etc. (paperos), and others, organized for the purpose of controlling prices and compelling the public to submit to their exactions. Importers have no alternative but to deal with the trusts.

Cuba, notwithstanding all drawbacks, became exceedingly prosperous through her agriculture, cigar manufactures, and commerce, but for the last twenty years or more her prosperity has been checked by internal dissensions. Another disadvantage of late has been the low prices prevailing abroad for sugar, formerly the chief source of wealth, while now its production is almost a losing business. It is also asserted that her world renowned tobacco has lost some of its former prestige, owing to deterioration in the quality of the leaf through excessive manuring of the soil. In this connection it may be well to mention that the author of the work entitled "Recent and Existing Commerce" says: "Tobacco grown on other islands, or even the mainland, is shipped to Cuba, and reëxported as "Cuba tobacco." It is not impossible that this assertion may be founded on fact. Smuggling has been and is yet very prevalent in Cuba, as is known to every business man on that island.

The chief staples of export are sugar, molasses and tobacco, both leaf and in the form of cigars and cigarettes; to which must be added honey, wax, coffee, rum, fruits and preserves, copper and timber. There was a time down to about 1840 or 1845 when coffee figured among the chief exports. Besides textile fabrics, cottons, linens, silks and woollens, the imports consist of an almost endless variety, namely, articles of food, live cattle and fish, lumber, shooks, staves, hoops, coal, metals, machinery, tools, instruments and implements, fibres and the manufactures therefrom, paper, petroleum, rubber and wax goods, chemicals, medicines, dyes, soaps, fancy articles of every kind, etc. The chief customers as well as sources of supply are the United States, Great Britain, Spain, France, Germany, Holland, Belgium and Russia.

In 1849 the imports of Cuba amounted in value to $23,320,460, and the exports to $22,436,556. In 1854 the exports were valued at $43,465,679. In 1862 the imports were $38,280,521, and the exports $51,302,571. Sugar exported in 1872: Boxes, 1,161,178; hogsheads, 51,089; total number of pounds, 108,308,370. Sugar exported in 1873: Boxes, 1,163,337; hogsheads, 48,003; total number of pounds, 119,039,230. Total value of the exports of 1872, $26,666,672; of 1873, $26,892,928. In 1872 were exported also, 12,000 hogsheads of molasses, 2,605,125 gallons of rum, 248,775 pounds of wax, 18,210,800 pounds of leaf tobacco, 229,067,545 cigars, and 19,344,707 packages (25 in each) of cigarettes, to which must be added about 242,000 tons of molasses; 70 or 80 per cent. of the whole went to the United States. The quantity of cigars exported in 1873 was 224,765,000, besides 13,500,000 pounds of leaf. The imports of 1877 were $58,432,165, and the exports $66,779,204. I subjoin a table which gives in together the exports to, and imports from Great Britain for the two islands, Cuba and Porto Rico, in the seven years 1875-81:

Years.	Exports.	Imports.
1875	$18,343,885	$13,153,170
1876	14,716,925	10,075,565
1877	7,526,225	11,218,855
1878	9,024,360	9,449,800
1879	14,649,180	8,857,640
1880	8,763,175	7,347,445
1881	8,122,490	10,952,385

The chief staple was unrefined sugar; next came tobacco and cigars, which in 1879 amounted to $2,476,030. According to statistics published by the colonial minister the trade of Cuba during the fiscal year 1884-85 was as follows:

Imports.....$31,587,859, including $5,776,849 from Spain.
Exports.....$56,636,404 " $4,704,388 to Spain.

The trade with the mother country was nearly $10,500,000. The distribution of the tobacco export was thus:

Countries	1884	1885
	Bales	Bales
To Spain	18,423	18,661
" Great Britain	1,543	1,110
" United States	107,672	152,576
" Germany	3,425	8,584
" France	4,480	8,245
" Other ports	1,863	834
Totals	137,411	190,010

Exported in 1886, 181,353 bales of tobacco leaf, and 181,000,000 cigars. Total value of exports that year, $80,000,000; of imports, $57,000,000. The value of exports to Spain was 39,280,460 Spanish pesetas; the imports, 69,044,242 pesetas.

Principal Articles of Import to Habana, during the years 1885-86.

Articles	1885		1886	
	Quantity	Value	Quantity	Value
		Dollars		Dollars
Jerked beef, quintals	213,758	1,603,185	309,489	2,499,910
Codfish, Am. "	13,652	850,325	19,611	88,020
" Norwegian	88,043	363,475	33,964	439,605
Flour, American barrels	147,735	1,809,750	147,563	4,102,700
" Spanish "	137,835	1,373,765	150,895	1,546,675
Rice, quintals	777,366	3,498,150	1,128,700	5,619,985
Lard, "	177,188	2,657,820	191,215	2,772,120
Coffee, bags	68,694	935,200	49,760	895,680
Coal, American tons	82,542	433,345	66,066	346,850
" English "	53,116	371,815	55,854	302,195

Value of the Principal Articles of Export from Habana, 1885-86.

Articles	1885		1886	
	Quantity	Value	Quantity	Value
		Dollars		Dollars
Sugar, boxes	724,404	8,937,045	836,457	9,622,225
" hhds	83,797	3,770,850	36,999	1,529,285
Molasses, hhds	20,857	—	28,022	288,975
Honey, tierces	2,184	84,500	2,341	63,425
Wax, quintals	6,272	156,175	4,049	101,225
Rum, pipes	15,398	384,950	8,574	205,875
Tobacco, bales	190,010	7,600,000	181,353	7,254,120
" cigars, 1000	155,953	—	187,941	—

Another article which may become one of the exports is bat-guano, of which 25,000 to 30,000 tons were discovered in a cave. The facilities for working the deposits were said to be excellent.

The British consul-general at Habana informed his government in 1888 that the annual production of sugar is from 500,000 to 700,000 tons. Commercially speaking, the Americans control the islands, as they take 90 per cent. of the exports, and supply 20 per cent. of the imports, besides one-third of the carrying trade, and own nearly all the steamers. Cuban products shipped to the United States in 1887 aggregated about $18,000,000 in value. The movement of shipping in 1884-86 was as follows:

1884-85—Entered 3,047 vessels with 2,315,109 tons.
Cleared 3,040 vessels, with 2,316,108 tons.
1885-86—Entered 3,139 vessels with 2,437,155 tons.

Porto Rico has been subject to the same regulations regarding commerce as Cuba. The trade seems to be monopolized by a few Spanish and American firms. The chief articles of export are coffee, sugar, molasses, honey, cotton, tobacco, mahogany and other minor products.

In 1836 the imports amounted to $4,005,908, and the exports to $4,099,572; in 1862, the imports were $9,199,105; the exports, $5,793,960; in 1867, imports, $15,000,000, and exports, $10,000,000; in 1870, imports, $13,008,200, and exports, $7,820,939; in 1871, imports were $17,500,000, and exports, $15,500,000, the larger portion consisting of sugar which went to the United States. The aggregate of imports and exports increased from $10,788,568 in 1850 to $24,876,940 in 1883. The exports for 1883 were, sugar and molasses, $5,182,975; coffee, $4,694,107; honey, $719,999; tobacco, $557,024. For 1885 imports were $11,745,023; exports, $14,048,639; total exports to Spain, 11,006,230 pesetas, and total imports from Spain, 12,149,086 pesetas. Movement of shipping in 1884-85: vessels entered, 1,648, with 1,108,396 tons; vessels cleared, 1,544, with 971,737 tons.

The United States carry on a direct trade with nearly all the nations of the earth, receiving and supplying an almost endless variety of commodities. The chief articles of export are cereals, cotton, tobacco, sugar, lumber, shooks, hoops, furniture, cotton and cotton fabrics, iron, etc. The imports consist mainly of woollen, cotton, silk, and linen goods, hemp, iron and their manufactures, minerals, sugar, molasses, tea, coffee, spirits and wines, living animals, earthen, stone, china and glassware, fruits, vegetables, and other articles too numerous to name. The tables on another page will convey full information on the nature and extent of the trade, from the earliest days of the country as an independent nation.

Between 1862 and 1872 the commerce of the United States was nearly trebled, its value in the latter year exceeding $1,000,000,000. After that date there were fluctuations during several years, for one of which the amount exceeded $1,500,000,000. In the period above alluded to the imports were uniformly larger than the exports, but after 1872 the reverse has been the case, the exports gaining upon the imports from year to year, until they are now considerably in excess. The returns of trade with Great Britain, the largest customer, show the imports, exclusive of bullion and specie, to be almost unchanged, while the exports have grown larger. This fact is attributed to the protective system maintained by the American government during the last quarter of a century, inasmuch as the heavy duties levied on foreign goods have developed native industries, and by enhancing wages offered wider home markets for the products of American labor. The increase of exports is due to the greater demand for raw materials, breadstuffs, etc., from foreign nations, which they could not produce themselves, or procure to advantage elsewhere. Free traders see in this a contravention of economic principles, believing with Doctor Yeats "that the surplus of one country should exchange with the surplus of another, and that consumers should buy in the cheapest markets, whereas they are forced to buy in the dearest." But the fact remains that while the protective system

has existed, the United States have enjoyed an unprecedented degree of prosperity.

Great Britain, on the other hand, has greatly prospered under the opposite system. She adopted half a century ago free trade by slow degrees, after a long struggle between the different schools of economy. Necessaries of life first, and raw materials next, were relieved of all burdens, numerous minor imposts were suppressed, and fiscal restrictions swept away, until the British nation stood before the world as champion of free trade. Only a few commodities, not necessaries of life, among which figure spirits and tobacco, are still subjected to heavy taxes for the double purpose of raising revenue and checking vice. British ports have also been freely opened to the flags of all nations, while the United States have reserved to the national flag the coasting trade. During all these years other nations have been observers of Great Britain's prosperity, but none have had the boldness to follow her example, not even her own self-governed colonies, most of which have adopted a protective policy. Neither ancient nor modern times ever saw, except in the United States, such a grand development of resources as Great Britain has experienced. But this result does not prove that the system she adopted would be advantageous to others, or will be to herself at all times. Murmurs loud and deep are already uttered, and demands made for the protection of certain industries.

Other nations do not take kindly to free trade. Germany has recently decided to follow in the footsteps of the Americans, and has adopted the protective system, hoping thereby to enlarge her manufacturing interests. Let us leave the matter here, and let the partisans of each policy discuss it for themselves. An American congressman said that the wealth of the country was fictitious, "an insane delusion that we are growing rich." This in the face of facts which cannot be controverted, namely, that the American people, as a whole, are better off than the people of any other country, and enjoy more solid comforts; the United States government has had a full treasury; has been rapidly paying off the enormous debt left by the sectional war; and allowed pensions to large numbers of soldiers and sailors of that war; while the states, cities, and towns have had at command funds in abundance to apply to educational and other useful purposes. All this appears to be positive evidence of national advancement in wealth, superadded to which is the enormous aggregate of deposits in the savings banks, showing that workingmen earn more than they need to provide for the support of themselves and their families, a benefit which but few of their brethren in Europe enjoy. Moreover, the laboring men of the West Indies and Spanish America, generally speaking, are not better off than those of the old continents. Figures furnished by European economists elucidate the subject. Jeans, an Englishman, gives the annual value from 1870 to 1880 of the trade, manufactures, etc., of the four chief commercial nations as follows: United Kingdom, £337,000,000; France, £144,000,000; Germany, £267,000,000; United States, £716,000,000.

In another table he compares the wealth, revenue and annual savings of the four countries, in millions of pounds sterling:

Countries	Wealth	Income	Annual Saving
United Kingdom	8,720	1,247	154
France	8,080	965	140
Germany	6,323	850	40
United States	9,495	1,420	210

Bismarck and Gladstone, the two greatest European statesmen of the present day, and other distinguished men, have unequivocally spoken of the great advancement of the American republic in wealth. Gladstone used these words, "America in the race for wealth is passing England with leaps and bounds." Bettany predicted that some day, "the destinies of the world would no longer depend on this (European) quarter of the globe, but on the younger, stronger, more vigorous United States." Before commencing to furnish statistics I wish to add here that the internal commerce of the United States exceeds the external trade of all the nations of the world, their own inclusive. I furnish also important information on the shipping of the world, and of the United States, as well as on the carrying trade of the latter.

Comparative Rates of Weekly Wages Paid in Europe and in the United States in 1884

[Condensed from the Report of the Secretary of State on the State of Labor in Europe, derived from facts reported by the United States Consuls, Washington, 1885]

Occupations.	Austria	Belgium	France	Germany	Great Britain.	Netherlands.	Switzerland.	United States.	
								New York	Chicago
	$	$	$	$	$	$	$	$	$
Bakers	4 63	4 28	.....	.....	6 17	4 80	3 88	7 00	12 00
Blacksmiths	3 18	5 38	5 81	4 00	7 37	4 80	5 20	13 00	15 00
Bookbinders	4 10	5 35	5 17	4 20	6 77	4 00	4 68	14 00	16 50
Bricklayers	3 55	4 56	5 74	4 21	7 56	4 80	5 21	20 00	24 00
Cabinet-makers	4 40	5 66	6 14	4 25	7 68	4 80	5 59	12 00	15 00
Carpenters & Joiners	5 10	4 07	6 26	4 11	7 66	4 80	4 74	14 00	16 50
Coopers	3 64	5 17	5 58	3 97	7 50	4 80	4 78	12 00	12 00
Drivers, Draymen	2 20	3 77	5 57	2 96	5 37	4 40	.....	10 00	12 00
Farm Laborers	3 50	2 72	3 10	3 06	4 02	3 24			
Laborers, Porters, etc.	3 20	3 00	3 77	3 11	4 70	3 61	2 88	9 00	10 50
Plasterers	4 01	4 66	6 34	4 43	7 80	4 00	5 03	18 00	27 00
Plumbers	4 11	5 46	6 10	4 26	7 90	4 80	5 18	16 00	22 50
Printers	4 85	5 94	6 64	5 09	7 23	4 80	6 78	13 00	18 00
Tailors	4 03	5 58	5 02	3 41	7 40	5 00	6 36	7-12	6-18
Tinsmiths	3 70	4 40	5 46	3 55	6 56	4 00	4 40	11 00	12 72
Weavers	3 15	3 95	3 23	2 79	6 31	3 60	3 05	10 00	

Comparative Retail Prices of the Necessaries of Life in Europe and the United States in 1884.

[Condensed from the Report of the Secretary of State, Washington, 1885]

ARTICLES	Austria (Vienna and Prague).	Belgium (Brussels)	France (Mars'll's and Rheims)	Germany (Berlin)	Great Britain (Liverp'l)	Nethrld's (Amsterdam).	Switzerland (Berne)	UNITED STATES	
								New York	Chicago
Meats per lb.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Bacon	15-18	16-20	15-20	.....	12-20	16-18	.....	16-20	14-20
Ham	30-38	30	40-60	25-30	24	16-26	30	16-20	14-18
Beef	10-10	15-17	14-30	17-20	14-20	15-29	15-18	10-25	6-15
Mutton	9-16	18	14-25	17-20	16-20	16-24	14	11-15	9-12
Veal	9-18	18	25-35	22-25	16-20	14-22	16-18	17-25	10-18
Pork	.....	16	15-20	16-20	16-20	.....	18-20	8-13	12½
Groc's per lb.									
Sugar	7-8	12	6½-12	8-13	4- 7	9-15	8	8	7- 8½
Tea	.....	.....	$1-1 40	70-$2	32-89	17-54	$1-1 50	25-70	25-81
Coffee	.....	16	35-60	20-40	24-40	13-25	18-32	20-32	20-35
Butter	26 28	20	32-60	20-38	24-32	22-33	30	30	20-28
Lard	12-16	.....	12-16	18	12-16	16-22	20	15-16	12½
Cheese	.....	.....	14-24	20	12 22	13-23	.....	12-20	12½-14
Rice	6	4-5	5-10	5-10	4- 8	3½- 6	6	6-10	5- 9
Flour	3-5	.....	5-10	4½-6½	3½- 4	4- 6	4- 6	4- 5	3- 5
Bread	3	3-5	.....	5-9	2½- 4	2½-6½	4- 5	6- 8	5- 7
Potatoes	1-2	1	1-2	1	1/10- 1	1	8	.....	1½

The average yearly value in gold of the imports and exports of the United States from the organization of their government in 1789 till 1850 appears in the subjoined table.

YEARS	IMPORTS.	Exports of Foreign Goods	Exports of Native Products
1789—1799	$ 52,359,299	$15,175,257	$ 27,944,992
1799—1809	93,351,628	87,827,500	87,287,530
1809—1819	81,906,927	13,357,458	45,338,432
1819—1829	80,220,651	23,826,438	52,892,668
1829—1839	126,641,143	19,564,916	83,845,630
1839—1849	119,678,698	13,283,998	110,840,752

Imports.

Years	Merchandise	Coin and Bullion	Total
1850	$173,509,526	$ 4,628,792	$178,138,318
1851	210,771,429	5,453,503	216,224,932
1852	207,440,398	5,505,044	212,945,442
1853	263,777,265	4,201,382	267,978,647
1854	297,623,039	6,939,342	304,562,381
1855	257,808,708	3,659,812	261,468,520
1856	310,432,310	4,207,632	314,639,942
1857	348,428,342	12,461,799	360,890,141
1858	263,338,654	19,274,496	282,613,150
1859	331,333,341	7,434,789	338,768,130
1860	353,616,119	8,550,135	362,166,254
1861	289,310,542	46,339,611	335,650,153

Exports of Foreign Products.

Years	Merchandise	Coin and Bullion	Total
1850	$ 9,475,493	$ 5,476,315	$14,951,808
1851	10,295,121	11,403,172	21,698,293
1852	12,053,084	5,236,298	17,289,382
1853	13,620,120	3,938,340	17,558,460
1854	21,631,260	3,218,934	24,850,194
1855	26,158,368	2,289,925	28,448,293
1856	14,781,372	1,597,206	16,378,578
1857	14,917,047	9,058,570	23,975,617
1858	20,660,241	10,225,901	30,886,142
1859	14,509,971	6,385,106	20,895,077
1860	17,333,634	9,509,388	26,933,022
1861	14,654,217	5,991,210	20,645,427

Exports of Native Products.

Years	Merchandise	Coin and Bullion	Total
1850	$134,900,233	$ 2,046,679	$136,946,912
1851	178,620,138	18,069,580	196,689,718
1852	154,931,147	37,437,837	192,368,984
1853	189,869,162	23,548,535	213,417,697
1854	213,985,286	38,062,570	252,047,806
1855	192,751,135	53,957,418	246,708,553
1856	266,438,051	44,148,279	310,586,330
1857	278,906,713	60,078,352	338,985,065
1858	251,351,033	42,407,246	293,758,279
1859	278,392,080	57,502,305	335,894,385
1860	316,242,423	56,946,851	373,189,274
1861	204,899,616	23,799,870	228,699,486

Value and Percentage of Agricultural Products Exported from the United States for each year, from 1850 to 1887.

From the Official Reports of the Bureau of Statistics.

Year ending June 30	Total domestic exports	Total exports of agricultural products	Percentage of agricultural products to total domestic exports	Year ending June 30	Total domestic exports	Total exports of agricultural products	Percentage of agricultural products to total domestic exports
	$	$			$	$	
1850...	136,946,912	123,825,808	90.44	1869...	413,761,115	311,756,665	75.32
1851...	196,689,718	165,828,736	85.69	1870...	499,092,143	391,569,605	79.01
1852...	192,368,984	144,037,465	74.85	1871...	562,518,651	397,963,220	70.75
1853...	213,417,697	176,589,418	82.74	1872...	549,219,718	407,141,706	74.13
1854...	252,047,806	195,258,953	77.48	1873...	649,132,563	493,962,697	76.09
1855...	246,708,553	175,385,328	71.09	1874...	603,039,054	550,043,038	79.37
1856...	310,586,330	248,091,084	79.91	1875...	643,094,767	479,8.3,212	74.63
1857...	338,985,065	260,139,925	76.75	1876...	644,956,406	514,339,866	81.30
1858...	293,758,279	232,478,953	79.49	1877...	676,115,592	517,737,098	76.58
1859...	335,894,383	258,449,990	76.96	1878...	722,779,499	592,475,813	81.98
1860...	373,189,274	295,081,484	78.61	1879...	699,538,742	543,691,174	77.72
1861...	228,699,486	180,516,442	82.46	1880...	823,846,353	685,867,787	83.24
1862...	213,060,519	160,823,597	75.50	1881...	883,925,947	730,040,360	82.59
1863...	305,884,998	215,273,568	70.36	1882...	733,239,732	552,216,511	75.31
1864...	320,035,199	183,356,276	57.29	1883...	804,223,632	619,269,449	77.00
1865...	323,743,187	207,232,749	64.01	1884...	724,964,852	536,315,318	73.98
1866...	550,684,277	416,157,242	75.58	1885...	726,082,946	530,172,966	72.96
1867...	438,577,312	330,413,246	75.35	1886...	665,964,529	484,954,595	72.82
1868...	454,801,713	319,004,581	70.22	1887...	703,022,923	523,073,774	74.40

The Balance of Trade for 30 Years, 1856-1886.

For the purpose of showing the total amount of exports and imports of merchandise and the total of specie in each year since 1856, the table below has been compiled. In the columns headed "Excess" are given the differences between exports and imports each year, showing at a glance the "trade balance" of the country.

Gold Value of Imports and Exports of Merchandise and Specie into and from the United States in each Fiscal Year since 1856.

Year	Merchandise			Specie		
	Imports	Exports	Excess	Imports	Exports	Excess
	$	$	$	$	$	$
1856...	310,432,310	281,219,423	Imp. 29,212,887	4,207,632	45,745,485	Exp. 41,537,853
1857...	348,428,342	293,823,760	Imp. 54,604,582	12,461,799	69,136,923	Exp. 56,675,123
1858...	263,338,654	272,011,274	Exp. 8,672,620	19,274,496	52,633,147	Exp. 33,358,651
1859...	331,333,341	292,901,051	Imp. 38,432,290	7,434,789	63,887,411	Exp. 56,452,622
1860...	353,616,119	333,576,057	Imp. 20,040,062	8,550,135	66,546,239	Exp. 57,996,104
1861...	283,310,542	219,553,833	Imp. 69,756,709	46,339,611	29,791,089	Imp. 16,548,531
1862...	189,356,677	190,670,501	Exp. 1,313,824	16,415,052	36,887,640	Exp. 20,472,588
1863...	243,335,815	203,964,997	Imp. 39,370,818	9,584,105	64,156,611	Exp. 54,572,506
1864...	316,447,283	158,887,988	Imp. 157,559,295	13,115,612	105,396,541	Exp. 92,280,929
1865...	238,745,580	162,013,500	Imp. 76,732,082	9,810,072	67,643,226	Exp. 57,833,154
1866...	434,812,066	348,839,522	Imp. 85,952,544	10,700,092	86,044,071	Exp. 75,343,979
1867...	395,763,100	297,303,653	Imp. 98,459,447	22,070,475	60,868,372	Exp. 38,797,897
1868...	357,436,440	281,952,839	Imp. 75,483,541	14,188,368	93,784,102	Exp. 79,595,734
1869...	417,596,379	285,117,697	Imp. 131,288,682	19,807,876	57,138,380	Exp. 37,330,504
1870...	435,958,408	392,771,768	Imp. 43,186,640	26,419,179	58,155,666	Exp. 31,736,486
1871...	520,223,684	442,820,178	Imp. 77,403,506	21,270,024	98,441,988	Exp. 77,171,964
1872...	626,595,077	444,177,586	Imp. 182,417,491	13,743,689	79,877,534	Exp. 66,133,845
1873...	642,136,210	522,479,317	Imp. 119,656,288	21,480,937	84,608,574	Exp. 63,127,637
1874...	567,406,342	586,283,040	Exp. 18,876,698	23,404,906	56,630,405	Exp. 28,175,499
1875...	533,005,496	513,441,711	Imp. 19,563,725	20,900,727	92,132,142	Exp. 71,231,425
1876...	460,741,191	540,384,671	Exp. 79,623,480	15,936,681	56,506,302	Exp. 40,569,621
1877...	451,323,126	602,475,220	Exp. 151,152,094	40,774,414	56,162,237	Exp. 15,387,753
1878...	437,051,532	694,848,496	Exp. 257,796,964	29,821,314	33,733,225	Exp. 3,911,911
1879...	445,777,775	710,439,441	Exp. 264,661,666	20,296,000	24,997,441	Exp. 4,701,441
1880...	667,954,746	835,638,658	Exp. 167,683,912	93,034,310	17,142,919	Imp. 75,891,391
1881...	642,664,628	902,367,346	Exp. 259,702,718	110,575,427	19,406,847	Imp. 91,168,580
1882...	724,639,574	750,542,257	Exp. 25,902,683	42,472,390	49,417,479	Exp. 6,945,089
1883...	723,180,914	823,839,402	Exp. 100,658,488	28,489,391	31,820,333	Exp. 3,330,942
1884...	667,697,693	740,513,609	Exp. 72,815,916	37,426,262	67,133,383	Exp. 29,707,121
1885...	577,527,329	742,189,755	Exp. 164,662,426	43,242,323	42,231,525	Imp. 1,010,798
1886...	635,436,136	679,524,830	Exp. 44,088,694	38,593,656	72,463,410	Exp. 33,869,754
1887...	692,319,768	716,183,211	Exp. 23,863,443	60,170,792	35,997,691	Imp. 24,173,101

The following table gives the total value of the gold and silver bullion and specie imported into the United States, and the value of that exported, being the product of the States, in each of the ten fiscal years ended 30th June, from 1878 to 1887:—

Years (ended June 30)	Imports of Specie	Exports of Specie	Years (ended June 30)	Imports of Specie	Exports of Specie
1878	$ 29,821,313	$27,061,885	1883	$28,489,391	$21,623,181
1879	20,296,000	17,555,035	1884	37,426,262	50,225,635
1880	93,034,310	9,347,893	1885	43,242,323	24,376,110
1881	110,575,497	14,226,944	1886	38,593,656	51,924,117
1882	42,472,390	43,480,271	1887	60,170,792	22,710,340

Exports and Imports of the United States to and from the countries embraced in this work (including merchandise, but not specie.)

Countries	1884		1883		1882	
	Exports from U. S.	Imports to U. S.	Exports from U. S.	Imports to U. S.	Export from U. S.	Imports to U. S.
Argentine Rep...	$ 5,074,593	$ 4,110,038	$ 3,543,196	$ 6,192,111	$ 2,964,253	$ 5,234,914
Brazil	8,095,659	50,265,889	9,252,894	44,488,459	9,152,562	48,801,878
Cent. Am. (Rep's)	3,177,853	6,161,227	2,027,735	5,121,315	1,644,013	4,735,398
Chili	3,270,562	587,936	2,860,496	435,584	1,774,645	1,810,487
Colombia	6,381,821	3,801,843	7,344,355	5,171,455	6,408,346	4,961,470
French W. Indies	2,373,159	3,139,288	2,367,526	2,895,857	2,005,714	2,461,533
Brit. W. Indies	11,164,814	14,149,943	11,088,050	15,214,380	10,578,999	10,362,298
Hayti & St. Dom.	4,064,279	3,829,026	4,533,784	4,389,034	4,159,608	4,445,997
Mexico	12,704,292	9,016,486	16,684,584	8,177,123	15,482,582	8,461,899
Perú	1,070,528	2,077,645	493,894	2,526,918	544,819	3,029,676
Cuba	10,910,753	57,181,497	17,647,698	65,544,534	12.134,824	70,450,652
Porto Rico	2,224,615	6,890,456	2,240,442	5,477,493	1,862,581	5,716,874
Uruguay	1,368,418	2,128,981	1,452,818	3,980,110	1,555,488	6,837,736
Venezuela	2,427,961	6,674,041	2,722,185	5,901,724	2,175,185	5,746,300

The imports and exports from and to Bolivia, Ecuador, and Paraguay are not given separately, neither are those from and to the Danish and Dutch West Indies given separately from those of the mother countries.

Early in the present century exports of cotton from the United States were valued at $5,000,000; in 1838 twelve times that amount, increasing from year to year till 1861. The following figures are appended; 17,955,250,000 pounds; 1820, 90,000,000 pounds; in 1840, 488,000,000; 1860, 1,116,000,000; 1870, 716,250,000; and 1885, 1,050,546,000 pounds.

Much cotton remained in the country, and a quantity, though by no mean comparable with the foregoing figures, went to other countries.

American Cotton Goods Exported.

To	1882 M yards	1883 M yards	1884 M yards	1885 M yards
Mexico, Chili, and other Am. countries	44,469	47,844	56,148	53,221

Meanwhile Spanish-America and Brazil continued taking British cotton goods in large quantities, as formerly. Solid American goods cannot compete with the inferior English fabrics in most Spanish-American markets, because the masses of the people, being poor, prefer the cheaper cloth though flimsy, to a dearer one though greatly superior. No other explanation is needed. The export of American cotton manufactures in 1880 was valued at $9,981,418. Cotton is ready for shipment at Galveston and other Texan ports earlier than from any other markets. Shipments generally begin about the middle of September, from which time freights are usually higher than after the season has passed. Vessels loading here early in the season, can go to a transatlantic port, and return for a second voyage the same season.

Exports and Imports of the United States by Countries (including merchandise but not specie), 1886–1887.

COUNTRIES	1887.				1886			
	Exports from U. S.	P. c. of total exports	Imports to U. S.	P. c. of total imp'ts.	Exports from U. S.	P. c. of total exports	Imports to U. S.	P. c. of total imp'ts.
	$	$	$	$	$	$	$	$
Argentine Rep.....	6,364,545	.89	4,100,192	.59	4,725,646	.69	5,022,346	.79
Austria.....	682,981	.09	8,522,088	1.23	1,995,135	.29	6,603,058	1.05
Belgium	27,939,823	3.90	8,063,648	1.16	23,294,395	3.42	9,178,513	1.44
Brazil.....	8,127,853	1.12	52,9.3,176	7.63	6,541,216	.96	41,907,532	6.59
Cl.Am.States(Nicaragua, Guat'la, Costa Rica, Honduras,& Salvador	2,935,447	.41	7,637,651	1.10	2,512,742	.37	5,915,413	.93
Chili.	2,069,138	.29	2,863,233	.42	1,983,606	.30	1,182,845	.19
China.....	6,246,626	.87	19,075,780	2.76	7,520,581	1.10	18,972,963	2.99
Colombia.....	6,114,941	.85	3,950,953	.57	5,480,457	.80	3,008,921	.47
Denmark and Danish West Indies...	4,517,325	.63	839,429	.12	3,520,452	.51	677,941	.11
France.	57,257,670	8.00	68,107,624	9.84	41,681,746	6.13	63,417,430	9.98
F'h poss. in Af'a	331,913	.04	492,343	.07	239,863	.03	310,695	.05
F'h poss. in Am.	1,807,846	.25	478,997	.06	1,946,273	.28	543,637	.08
Germany	58,571,272	8.17	80,647,560	11.65	61,961,193	9.11	69,154,997	10.88
Great Britain.....	366,310,679	51.15	165,067,443	23.84	348,453,700	51.27	154,254,054	24.28
Canada and Brit. N.Am. provin's	36,162,347	5.05	38,015,584	5.49	34,785,021	5.11	37,496,338	5.91
Brit. W. I., Brit. Honduras, and British Guiana	8,471,175	1.18	14,612,935	2.11	9,286,069	1.36	11,988,639	1.88
British E. Indies	3,902,577	.55	18,836,090	2.72	4,358,190	.64	17,247,825	2.71
Gibraltar & Brit. poss. in Africa	2,203,964	.30	1,238,883	.18	2,166,517	.31	1,354,474	.21
British poss. in Australia.....	9,668,435	1.35	4,411,119	.64	11,134,301	1.63	3,859,360	.61
Greece	171,497	.02	998,243	.14	144,003	.02	730,823	.11
Gr'nl'd, Icel'd and Faroe Islands	.....	.....	157,134	.02	.....	.....	91,890	.01
Hawaiian Islands..	3,622,029	.50	9,922,075	1.43	3,192,698	.47	9,805,707	1.54
Hayti & S Domingo	4,262,993	.60	3,132,663	.45	4,111,650	.60	4,260,123	.67
Hong Kong..... ..	2,984,042	.42	1,436,481	.21	4,056,236	.59	1,072,459	.17
Italy	12,171,604	1.70	19,387,808	2.80	13,373,424	1.96	16,870,636	2.65
Japan..	3,335,592	.47	17,114,181	2.47	3,135,533	.46	14,885,573	2.34
Liberia	94,364	.01	86,531	.01	98,885	.01	67,751	.01
Mexico	7,959,567	1.11	14,719,840	2.13	7,737,623	1.15	10,687,972	1.68
Netherlands	18,848,270	2.63	9,922,913	1.43	14,759,717	2.17	8,523,846	1.34
Dutch W. Indies and Guiana.....	779,439	.10	739,119	.10	871,869	.13	727,698	.12
Dutch E. Indies.	2,169,099	.31	2,978,071	.42	2,132,947	.31	3,175,930	.50
Peru.....	722,829	.10	461,726	.07	813,697	.11	963,480	.15
Portugal.....	4,540,887	.63	1,673,198	.24	4,476,423	.65	1,344,167	.22
Portuguese poss.	368,264	.05	87,772	.01	476,985	.07	103,587	.02
Russia & Russian poss.....	7,736,034	1.08	4,413,301	.68	9,862,493	1.45	3,288,127	.51
Spain.....	12,781,553	1.78	5,570,868	.81	13,091,950	1.92	5,930,202	.93
Cuba	10,546,411	1.47	49,515,434	7.14	10,409,170	1.53	51,110,780	8.05
Porto Rico.....	1,738,492	.24	4,661,690	.67	1,710,569	.25	4,594,544	.72
Other Span. poss	310,814	.04	8,714,230	1.28	340,890	.05	9,675,601	1.53
Sweden & Norway	3,080,869	.42	3,113,402	.45	2,938,187	.43	2,563,033	.40
Switzerland.....	49,598	.01	13,578,213	1.96	31,727	.....	14,333,981	2.26
Turkey...	767,868	.18	4,958,073	.74	1,562,821	.23	3,930,200	.61
Uruguay.....	1,567,981	.22	2,818,761	.41	1,221,076	.17	4,925,848	.78
Venezuela	2,871,719	.40	8,261,236	1.19	2,732,830	.40	5,791,621	.91
All other countries	3,014,818	.42	3,975,177	.56	2,654,324	.40	3,868,576	.62
Grand Total.....	716,183,211	100.00	692,319,868	100.00	679,524,835	100.00	635,436,136	100.00

The general imports and the exports of United States produce are classified as follows for 1886-87:—

Imports	Dollars	Exports	Dollars
Food substances & animals	213,973,334	Agriculture	523,073,774
Raw materials	168,312,241	Manufactures	135,337,574
Manufactured articles	86,283,686	Mining	11,758,720
Manufactured articles for consumption	139,901,707	The forest	21,126,212
Luxuries, etc	89,848,796	The fisheries	5,135,771
		All others	6,570,872
Total	692,319,768	Total	703,022,923

The following table shows the value of the chief exports of domestic merchandise for the two years ending June, 1887:—

Exports	Dollars	Exports	Dollars
Cotton	206,222,057	Copper & manufactures of	3,727,477
Cotton manufactures	14,929,342	Leather and manufactures of	10,436,138
Wheat	90,716,481	Oil Cake	7,309,691
Wheat-flour	51,950,082	Furs, furskins, hides and skins	5,572,932
Maize	19,347,301	Fish	3,965,718
Meat, eggs, butter, and other provisions	92,783,296	Chemicals	5,340,480
Petroleum	46,824,412	Coal	4,526,325
Tobacco	29,230,672	Spirits of turpentine	3,489,895
Wood and its manufactures	19,654,934	Paraffin	2,032,713
Iron and steel manufactures and bars	15,958,502	Wool and manufactures of	617,344
Cattle	9 172,136	Fruits	2,669,965
Sugar and molasses	12,908,907	Agricultural implements	2,133,398

The leading imports into the United States were in 1887:—

Imports	Dollars	Imports	Dollars
Sugar, molasses, etc	74,519,607	Wood and manufactures	13,046,364
Wools	16,424,479	Leather and manufactures	11,189,945
Woollen manufactures	44,902,718	Tobacco and manufactures	12,176,463
Chemicals	40,616,927	India-rubber and gutta-percha	13,756,783
Coffee	56,347,600	Paper stock and manufactures	6,568,833
Iron and steel manufactures	43,203,164	Jewellery and precious stones	11,402,257
Flax, hemp, jute, and manufactures	34,245,861	Animals	7,816,198
Cotton goods	28,940,853	Barley	6,173,298
Hides, furs, etc	31,504,720	Wines	7,056,085
Silk goods	31,347,923	Glass and glassware	7,319,895
Silk, raw, and cocoons	19,642,797		
Tea	16,771,802		
Fruits and nuts	20,608,486		

The following table shows for the year 1886-87 the value of the exports of

domestic merchandise to and the imports from the following countries, according to the United States returns:—

Countries	Home exports to	Imports from
	Dollars	Dollars
Great Britain and Ireland	363,101,143	165,067,463
Germany	57,316,655	80,647,560
France	55,681,994	68,107,624
British North America	33,495,403	38,015,584
Belgium	27,239,023	8,063,648
Netherlands	18,445,556	9,922,913
Spain	12,753,634	5,570,868
Italy	12,056,481	19,387,088
Cuba	10,138,939	49,515,434
Australasia	9,543,474	4,411,119
Brazil	8,071,653	52,593,716
Russia	7,754,944	4,418,801
Mexico	7,267,129	14,719,840
British West Indies	6,465,030	11,569,779
China	6,246,626	19,076,780
Colombia	5,973,965	3,950,953
Argentine Republic	5,671,729	4,100,192
Portugal	4,506,521	1,679,198
British East Indies	3,902,047	18,836,090
Denmark	3,892,593	338,754
Hawaii	3,520,593	9,992,075
Japan	3,280,314	17,114,181
Hayti	3,059,218	1,752,587
Hong Kong	2,980,055	1,436,481
Central America	2,861,126	7,637,651
Venezuela	2,827,010	8,261,236
Dutch East Indies	2,169,099	2,978,071
Chili	2,062,507	2,868,233
Guianas	1,797,040	3,223,745
Uruguay	1,393,725	2,818,761

Thus, in the year ending June 30, 1887, 51.65 per cent. of the domestic exports of the United States went to Great Britain alone, while 23.84 per cent. of the imports came from that country.

The commercial intercourse of the United States with Great Britain and Ireland, according to the board of trade returns, is shown in the subjoined table:—

Years	Exports from the United States to Great Britain	Imports of British home produce into the United States
	£	£
1877	77,825,978	16,876,814
1878	89,146,170	14,552,076
1879	91,818,295	20,321,990
1880	107,081,260	30,855,871
1881	103,207,829	29,796,298
1882	58,852,618	30,970,147
1883	99,238,960	27,372,968
1884	86,278,541	24,426,636
1885	86,478,813	21,993,821
1886	81,600,197	26,824,876

The value of the total imports from Great Britain into the United States in 1883 was £36,732,506; in 1884, £32,738,583; in 1885, £31,094,589; and in 1886, £37,607,805.

The two staple articles of export from the United States to Great Britain and Ireland are grain—including breadstuffs of all kinds under the name—and raw cotton. The total quantity and value of the grain exports were as follows in each of the five years from 1882 to 1886:—

Years	Quantities	Value
	Cwts.	£
1882	48,841,885	27,279,630
1883	59,145,478	28,837,218
1884	43,618,366	19,720,088
1885	57,913,882	22,786,486
1886	54,044,225	20,237,656

The most valuable of the corn exports is that of wheat and wheat flour, which amounted to 21,630,691*l.* in 1883, 16,662,389*l.* in 1884, 16,706,397*l.* in 1885, and 15,690,894*l.* in 1886. The value of the maize exports to Great Britain in 1883 was 6,860,889*l.*; in 1884, 2,595,168*l.*; in 1885, 5,242,541*l.*; and in 1886, 4,093,821*l.*

The exports of raw cotton from the United States to Great Britain and Ireland were of the following quantities and value in each of the five years from 1882 to 1886:—

Years	Quantities	Value
	Cwts.	£
1882	10,310,109	30,408,192
1883	11,066,166	32,087,949
1884	10,817,930	30,846,362
1885	9,379,875	26,505,430
1886	11,540,508	28,555,402

Other considerable exports to Great Britain were, in 1886, bacon and hams, 6,814,321*l.*; cheese, 1,837,487*l.*; lard, 1,330,467*l.*; petroleum, 1,993,873*l.*; oxen and bulls, 2,270,831*l.*; fresh beef, 1,993,873*l.*; tobacco, 2,671,869*l.*; leather, 1,419,477*l.*; sugar, 1,360,106*l.*

The leading articles of import of British produce into the United States are iron, wrought and unwrought, manufactured cotton goods, and manufactured linen and woollen goods. The following table gives the total value of these articles of British import in the five years from 1882 to 1886:—

Years	Iron	Cotton Goods	Linen Goods	Woollen Goods
	£	£	£	£
1882	9,068,456	3,848,378	2,874,203	2,995,303
1883	6,383,065	3,473,651	2,580,676	3,181,012
1884	4,783,837	2,690,655	2,276,820	3,894,457
1885	4,206,884	2,271,119	2,284,282	3,194,107
1886	5,780,580	2,362,640	2,510,981	4,434,456

Other imports are alkali, 1,006,723*l.*, and jute manufactures and yarn, 1,034,086*l.* in 1886.

United States Imports of Leading Articles

1881-1887

Fiscal Year	Woollens	Cottons	Hemp and manuf's	Iron and steel Manuf's	Linen and flax manuf's	Silks
	$	$	$	$	$	$
1881	49,860,894	31,219,329	4,244,788	46,439,747	16,159,176	82,656,701
1882	43,457,570	34,351,292	6,292,310	51,377,683	17,720,548	51,875,959
1883	55,224,283	36,803,889	5,118,508	40,796,007	19,737,542	36,764,276
1884	53,542,292	30,454,476	All manuf's of flax,	41,464,599	38,463,398	49,949,128
1885	44,656,482	28,152,001	hemp, & jute cl'ss'd	33,610,093	32,854,874	40,893,002
1886	58,167,400	30,381,774	together in 1884,	37,584,078	39,923,502	46,235,157
1887	61,827,197	29,474,281	and since	49,203,164	34,245,861	50,990,720

Fiscal Year	Sugar	Molasses	Tea	Coffee	Spirits and wines	Earthen, stone and China ware
	$	$	$	$	$	$
1881	81,854,309	7,077,694	21,004,813	56,784,391	8,742,261	6,579,989
1882	90,099,407	10,335,256	19,392,102	46,041,609	9,849,533	6,979,459
1883	84,179,443	7,769,426	17,302,849	42,050,513	12,308,307	8,620,527
1884	98,283,589	5,600,685	13,636,053	49,686,705	8,951,723	4,954,813
1885	72,539,657	4,199,296	14,047,583	45,723,318	9,379,223	4,837,782
1886	80,797,077	5,587,884	16,020,383	42,672,987	10,086,287	4,947,621
1887	78,434,195	5,355,475	16,771,802	56,317,600	9,011,553	5,716,927

Aggregate Exports from the United States of Leading Articles of Domestic Produce

1881-1887

Fiscal Year	Cotton raw	Cotton manuf's	Iron and steel manuf's	Corn, Indian	Flour	Wheat	Bacon and hams
	$	$	$	$	$	$	$
1881	247,696,746	13,571,897	14,168,250	59,702,669	45,047,257	167,698,485	61,161,205
1882	198,812,644	15,212,979	17,551,322	28,845,230	36,376,955	112,929,718	46,675,774
1883	247,328,721	12,951,145	19,365,321	27,756,082	54,824,459	119,879,341	38,156,952
1884	197,015,204	11,885,211	21,921,962	27,648,199	51,139,696	75,026,678	39,684,844
1885	201,962,458	11,836,591	16,605,046	28,908,863	62,146,836	72,933,097	37,983,948
1886	205,086,742	13,959,984	15,706,490	31,730,922	38,442,955	50,262,715	31,649,211
1887	205,810,995	15,090,060	16,138,127	19,247,951	51,950,982	90,716,481	33,314,670

Fiscal Year	Lard	Pork	Butter	Cheese	Petroleum and coal oil	Tobacco, leaf and manuf's	Wood and manuf's
	$	$	$	$	$	$	$
1881	35,228,575	8,272,285	6,256,624	16,880,248	40,315,669	20,878,884	18,600,812
1882	28,975,902	7,291,270	2,364,550	14,058,375	51,232,706	21,430,869	24,612,928
1883	26,618,943	6,192,258	2,290,655	11,184,526	40,993,188	22,095,229	25,798,706
1884	25,305,958	4,782,715	3,750,771	11,668,713	47,103,248	20,296,217	24,275,128
1885	22,595,219	5,003,948	3,648,646	10,444,409	40,074,827	24,767,305	21,464,322
1886	20,861,786	5,119,426	2,955,457	7,662,145	40,684,881	30,424,908	20,643,390
1887	22,704,921	5,642,027	1,983,698	7,594,698	37,308,997	28,270,875	19,654,984

COMMERCE.

Value of Merchandise Exported from the U. S. to Mexico for the Year ending June, 1887.

Articles	Dollars
Breadstuffs	12,726,167
Cotton, manufactures of	5,463,989
Iron and steel, and manufactures of	7,278,100
Oils, mineral refined or manufactured	2,867,052
Provisions, comprising meat and dairy produce	8,678,710
Wood, and manufactures of	7,797,272
All other merchandise	20,093,089
Total domestic exports	64,904,479
Total foreign exports	2,791,263
Total exports	67,695,742

Comparing the above statement with the total exports of 1880, there is an increase of 6,149,268, as the total exports for 1880 amounted to 61,546,474. It will be seen that sugar and molasses were first in the order of magnitude of imported articles, while among the exported articles breadstuffs stood first and provisions next.

Imports into the United Kingdom from the United States in 1885 compared with 1884.

Articles	Values	Increase over 1884	Decrease from 1884
Animals, live	$15,725,250		$1,308,800
Bacon and Hams	82,391,810	$2,002,200	
Beef, salt and fresh	13,306,500	240,885	
Butter and butterine	1,587,635		155,145
Caout-chouc	132,125		149,685
Cheese	9,325,820		3,072,720
Clocks	487,135		46,885
Coffee	473,545	91,540	
Copper	4,992,530	207,380	
Corn, flour and meal, all sorts	113,927,930	15,344,740	
Cotton, raw and manufactured	134,226,410		21,210,510
Fish	2,547,080		192,080
Fruit	2,212,650	446,930	
Hides, raw	428,330		32,235
Hops	2,110,015		1,527,255
Iron and steel manufactures	862,135		128,425
Lard	7,248,830	336,185	
Leather	7,500,080	306,620	
Manures and phosphates	1,671,780	175,990	
Meat, salt. fresh, and preserved	3,472,700		111,185
Mutton, fresh	460,775		8,235
Oils	3,151,815		725,020
Oil-seed cake	7,212,200	235,220	
Petroleum	10,766,055	2,662,220	
Pork, salt	1,668,475	129,890	
Rosin	1,503,825		364,115
Seeds, clover and grass	324,360		603,395
Silver ore	1,211,350	345,330	
Skins and furs	2,699,995	563,195	
Sugar, refined	10,354,920	5,083,995	
Sugar, unrefined	169,485	77,955	
Sugar, molasses	502,625		130,815
Tallow and stearine	1,972,945		1,193,495
Tobacco	12,668,330	5,861,675	
Wood and timber	8,113,790		1,562,760
Wool	120,610	15,045	
All other articles	14,821,420		
Total	434,394,065	21,001,360	

Value of Exports from the United Kingdom of Great Britain and Ireland to the United States of America for the year ending September 30, 1886, together with value for preceding year; also column exhibiting decrease or increase for period named.

No.	District	Staple (if any)	1886	1885	Percentage of decrease	Decrease	Percentage of increase	Increase
1	Belfast	Linens	$8,391,933.19	$7,800,096.65	.....	.....	7½	$591,836.54
2	Birmingham	Hardware, cutlery, etc.	3,218,881.93	2,875,388.26	.....	.....	11¾	343,493.67
3	Bradford	Stuffs	18,319,924.26	11,565,989.95	.....	.....	58¼	6,753,934.31
4	Bristol	Tin-plates and chemicals	463,995.00	399,655.00	.....	.....	16	64,340.00
5	Cardiff	Tin and terne plates	2,378,539.83	3,785,602.65	37	$1,407,062.82	.....	.....
6	Cork	Hides and feathers	256,836.22	65,254.28	.....	.....	293½	191,581.94
7	Dublin	Ale and porter	1,032,404.87	781,782.04	.....	.....	32	250,622.83
8	Dundee	Burlaps and linens	6,858,574.36	6,335,495.71	.....	.....	8	523,078.65
9	Dunfermline	Linens and cottons	1,659,097.14	1,598,759.89	.....	.....	3½	60,337.25
10	Falmouth	China-clay	59,043.13	98,655.54	40	39,612.41	.....	.....
11	Glasgow	Thread, cottons, and linens	6,549,455.96	5,285,319.35	.....	.....	23¾	1,264,136.61
12	Gloucester	Tin-plates and woolens	140,753.74	154,930.79	9	14,177.05	.....	.....
13	Hull	Beer colors, etc	249,066.87	433,112.51	42½	184,045.64	.....	.....
14	Leeds	Woolens and cottons	5,179,506.35	3,884,045.99	.....	.....	33¼	1,295,460.36
15	Leith	Books	843,961.62	895,903.50	5¾	51,941.88	.....	.....
16	Liverpool	Tin-plates, chemicals, etc	33,532,938.68	26,677,507.59	.....	.....	25½	6,855,431.09
17	London	Metals, etc	51,632,923.19	37,323,547.79	.....	.....	38¼	14,309,375.40
18	Londonderry	Whisky	4,235.91	1,401.35	.....	.....	202¼	2,834.56
19	Manchester	Cottons	11,281,578.09	10,583,050.34	.....	.....	6½	698,527.75
20	Newcastle-on-Tyne	Chemicals, sodas, etc	1,940,896.69	1,786,211.85	.....	.....	8½	154,684.84
21	Nottingham	Lace goods, etc	5,731,355.84	5,288,572.34	.....	.....	8¼	442,783.50
22	Plymouth	Live stock	97,866.35	90,727.70	.....	.....	7¾	7,138.65
23	Sheffield	Hardware and cutlery	2,546,092.71	2,186,745.21	.....	.....	16¼	359,347.50
24	Southampton	Live stock	6,437.48	5,974.05	.....	.....	7¾	463.43
25	Tunstall	Earthenware	3,136,018.95	2,800,865.56	.....	.....	11½	326,153.39
	Total		165,512,318.36	132,713,595.89	.....	1,696,839.80	20	34,495,562.27

Summary of Value of Exports, etc., of preceding page.

Total for year ending September 30, 1886	$165,512,318.36
Total for year ending September 30, 1885	132,713,595.89
Increase	$32,798,722.47
Increase in 20 consulates	$34,495,562.27
Decrease in 5 consulates	1,696,839.80
Net increase	$32,798,722.47

Trade between the United States and Great Britain and Ireland for ten years.

Year	Exports to the United States			Imports from the United States
	Produce and manufactures of Great Britain and Ireland	Foreign and colonial produce and manufactures	Total	
1876	$84,167,585	$16,965,550	$101,133,135	$379,495,049
1877	81,884,070	17,545,395	99,429,465	389,129,865
1878	72,760,380	14,899,140	87,659,520	445,739,850
1879	101,609,950	25,983,995	127,593,945	459,091,475
1880	154,279,355	35,491,605	189,770,690	585,406,300
1881	148,981,490	34,933,745	183,915,235	516,039,145
1882	154,850,735	38,692,480	193,543,215	441,763,065
1883	136,864,940	46,797,690	183,662,630	496,194,800
1884	122,138,180	41,559,485	163,692,665	481,392,705
1885	109,969,105	45,503,840	155,472,945	432,394,065

Comparative Statement, Imports of Fiscal Years 1885 to 1887.

	1885	1886	1887
Total Value of Merchandise Imported	$577,527,329	$635,436,136	$692,319,768
Total Value of Coin and Bullion Imported	43,242,323	38,593,656	60,170,792
Aggregate Imports—Mdse. and Specie	$620,769,652	$674,029,792	$752,490,560
Merchandise brought in American Vessels	$112,864,052	$118,942,817	$124,365,426
Merchandise brought in Foreign Vessels	443,513,801	491,937,636	543,592,216
Mdse. brought in cars and other land vehicles	21,149,476	24,555,683	23,562,059
Aggregate Imports of Merchandise	$577,527,329	$635,436,136	$692,319,768

Summary of Specie Imports.

Gold.	1886	1887	Silver.	1886	1887
Bars & Bullion	$4,073,458	$12,770,714	Bars & Bullion	$4,151,438	$4,982,627
Coin—American	1,687,231	5,862,599	Coin—American	520,280	1,289,605
Coin—Foreign	14,982,660	17,277,378	Coin—Foreign	13,178,589	11,097,889
Total Imported	20,743,349	42,910,691	Total Imported	17,850,307	17,280,121

Aggregate Imports—Gold, Silver, Coin and Bullion, 1885, $43,242,323; 1886, $38,593,650; 1887, $60,170,792.

Comparative Statement, Exports of fiscal years 1885-1887.

	1885	1886	1887
Total foreign exports	$ 83,362,224	$ 84,099,594	$ 26,447,639
Total domestic exports	751,059,056	717,888,646	725,733,263
Gross exports	$784,421,280	$751,988,240	$752,180,902
Of which there was in specie and bullion	17,355,415	20,539,293	13,287,351
Carried in American vessels	104,108,010	100,642,677	89,385,465
Carried in foreign vessels	655,513,653	630,973,067	641,218,804
Carried in cars, etc	24,799,617	20,372,490	21,576,633
Totals for the three years	$784,421,280	$751,988,240	$752,180,902

Fisheries of the United States, 1880.

No. of persons employed	131,426
Capital invested	$37,955,349
Value of products	$43,046,053
No. of vessels employed	6,605 with 20,829,782 tons
Value of vessels	$9,357,282
No. of boats	44,804
Value of boats	$2,465,393
General Fisheries	$22,405,018
Value of whale fishery	$2,323,943
" seal "	2,289,513
" menhaden fishery	2,116,787
" oyster "	13,403,352
" sponge "	200,750
" marine salt industry	805,890

The Merchant Shipping of the World.

SEA-GOING TONNAGE OF THE MARITIME STATES OF THE WORLD.

The following table represents the total *sea-going* tonnage of the countries indicated, January 1, 1885.

Nationality	Steam Vessels		Sailing Vessels		Grand Total	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
Great Britain	3,299	3,528,790	3,790	2,598,585	7,089	6,127,375
United States	355	545,187	6,284	2,138,880	6,639	2,684,067
Norway	266	141,452	4,086	1,443,741	4,352	1,585,193
Germany	509	566,697	2,424	863,611	2,933	1,430,308
France	505	750,061	2,173	398,561	2,678	1,148,622
Italy	147	201,070	2,869	848,823	3,016	1,049,893
Spain	314	363,908	1,381	272,088	1,695	635,991
Russia	210	161,110	2,159	472,479	2,369	633,589
Sweden	311	130,180	1,961	407,521	2,272	537,701
Netherlands	174	214,538	952	277,945	1,126	492,483
Denmark	177	155,344	1,150	181,033	1,337	336,377
Austria	102	130,447	510	209,445	612	339,892
Greece	55	51,878	1,302	254,760	1,357	306,638
South America	140	95,673	385	141,401	525	237,074
Belgium	60	108,207	.....	.....	60	108,207
Asia	112	106,232	118	35,375	230	141,607
Portugal	23	22,299	369	82,049	392	104,348
Turkey	14	10,144	413	67,605	427	77,749
Egypt	31	35,662	.....	.....	31	35,662
Mexico	13	18,285	44	8,070	57	26,355
Centr'l America	2	719	55	19,334	57	20,055
Roumania	8	1,666	19	3,354	22	5,020
Various	21	16,201	85	21,643	94	37,844
Total	6,843	7,355,750	32,529	10,746,315	39,370	18,181,899

The international commerce of the United States is at present mainly carried on in foreign vessels, the shipping belonging to the United States was classed as follows in 1886: Sailing vessels, 16,067, with 2,608,152 tons; Steam vessels, 5,467, with 1,522,894 tons; total, 23,534 vessels, with 4,131,136 tons. Of vessels registered as engaged in the foreign trade, the aggregate burthen was in 1886, 1,088,041 tons, a decrease of 144,778 from 1885; while of vessels engaged in the coasting trade, the total burthen was 2,939,252 tons, or 43,881 tons more than in 1885. In 1886, 475 sailing vessels of 50,985 tons, and 240 steamers of 44,467 tons were built in the United States. The shipping of the United States was as follows, on the 30th of June, 1887.

Employed in foreign trade	989,412 tons.
Employed in coast-wise trade	3,010,785 tons.
Employed in whale fishery	26,151 tons.
Employed in cod and mackerel fisheries	79,547 tons.
Aggregate	4,105,845 tons.

The tonnage entered and cleared in the foreign trade during the last two years was as follows:

Entered at Sea-ports	1886	1887
	Tons	Tons
American, sail	1,467,224	1,470,489
American, steam	1,294,571	1,400,447
Foreign, sail	3,585,655	3,829,590
Foreign, steam	5,882,349	6,831,189
	12,229,799	13,531,715

Entered at Lake-ports	Tons	Tons
American	469,778	494,580
Foreign	2,436,039	1,789,988
	2,905,817	2,284,568

Cleared in 1887	American	Foreign
Sea-ports	2,770,518	10,740,017
Lake-ports	488,528	1,754,168
	3,259,046	12,494,185

Of the total foreign trade in 1886-87 only 14.23 per cent. was conveyed in vessels of the United States. The proportion has steadily decreased since 1856, when it was 75.2 per cent.

Foreign Carrying Trade of the United States.

The foreign carrying trade of the country from 1821 to 1861 in American bottoms greatly exceeded that in foreign bottoms. In the last named year the imports in American ships were valued at $201,544,055; in foreign vessels, $134,106,098. Total of imports and exports in American bottoms, $381,516,788; ditto in foreign bottoms, $206,478,278. From that time the foreign carrying trade in American vessels began to decline, and in 1865 the total was only $167,402,872, against $437,010,124 for the year in foreign vessels. Since that year it has been rallying in some years, and declining in others; the figures for the years 1885, 1886 and 1887, show the totals of imports and exports in American vessels to have been respectively $194,865,743, $197,349,503 and $194,356,746, against $1,679,548,566, $1,073,911,113 and $1,165,194,508 in foreign bottoms for the corresponding years. The reasons alleged for this decline are that under the present circumstances of the country, affording a multiplicity of more remunerative occupations, and the prevailing high wages, ships can neither be built nor sailed in the United States as cheaply as they are in Europe.

The traffic of the Bermuda islands is with Great Britain, the United States, and Canada, mainly with the two last, which send them the greater part of their food supplies, and take in return the few products of the islands, consisting of vegetables, onions, beet-root, arrow-root, potatoes, tomatoes, bananas, etc.

The value of the imports between 1875 and 1886 was about $15,500,000, and the exports in the same period about $5,000,000. The total tonnage entered Bermuda ports in 1886 was 281,528, of which 233,883 were British.

About two-thirds of the exports and imports of British Honduras are to and from Great Britain, and the remainder to and from the United States, to which countries are forwarded woods, raw sugar, rum, fruits, India-rubber, nuts, coffee, vanilla, drugs, dyes, turtles, hides, etc. The imports consist of provisions, wines, liquors and manufactured articles of every description.

About 20,000 tons of mahogany used to be exported annually, but the demand has decreased. The logwood of the country is greatly valued, and the yearly export is about 15,000 tons.

The value of imports for ten years, ending with 1877, was $8,905,875, and for that year $828,780; the exports for 1877, $622,515; the imports for 1878-81, $1,923,000. The following was the trade of 1881-86:

Years	Imports	Exports
1881	$1,009,067	$1,287,013
1882	1,164,411	1,256,158
1883	1,344,865	1,514,348
1884	1,187,690	1,587,248
1885	1,274,281	1,221,401
1886	1,179,813	1,400,284

About $360,000 of the exports of 1886 were of produce and manufactures in transit. The imports of 1882-86 from Great Britain were $2,934,620; exports to the British islands were $3,971,174. Honduran imports from the United States were $2,276,403; exports, $817,096. The average annual export of mahogany, costing $40 to $50 per M feet, amounts to 3,000,000 feet; of logwood, costing $10 to $15 per M feet, 17,000 tons. The export of mahogany in 1886 was 7,527,879 cubic feet, of logwood in the same year, 20,134 tons. The other leading exports for the same year were: sugar, 1,622,380 pounds; rum, 25,411 gallons; cedar, 132,498 feet; rosewood, 72½ hundred weight; India-rubber, 134,909 pounds; sarsaparilla, 21,609 pounds; turtles, 304. The value of fruit exported

was from $75,000 to $100,000. The transit trade with the neighboring republics is extensive. India-rubber, sarsaparilla, etc., pass through the ports of the colony. Of the total exports $1,040,591 represent the value of the produce and manufactures of the colony; $359,643 that of British, foreign and other colonial produce and manufactures, in course of transit through the colony. Of the imports of 1886, $780,200 were for home consumption, and $399,613 for transit. The United States treasury reports thus compares the trade between 1870 and 1885:

Year	Imports	Exports
1870.....	$ 897,061	$ 876,980
1885.....	1,240,257	1,188,789

The tonnage which entered and cleared in 1877, exclusive of the coasting trade, was 78,974 tons, of which 46,168 represented British vessels; in 1886, 1,132 vessels (576 of them British) entered with 237,227 tons (100,972 of them British.)

As late as the middle of the present century the British West India islands absorbed about one-fifth of the total British exports to the colonies; since that time though their imports have almost doubled, the ratio is about as one to forty of the total colonial and India trade of the mother country. Hopes are entertained that the prosperity they enjoyed in the old slavery days will be restored upon a firmer and more enduring basis.

A confederation of the colonies has been discussed, with the view of developing trade, and thereby securing their future prosperity. There are serious obstacles to the realization of the plan, however, in their financial condition, and the differences in their mode of government, for as will be seen in treating of this latter subject with reference to each colony separately, some have elective legislatures, and others are crown colonies. Cases have occurred, besides, where the colonists have petitioned the crown to relieve them of self government and assume direct control of affairs. In regard to the financial feature of the difficulty, while some colonies are flourishing, others are almost on the verge of bankruptcy. The latter are better disposed toward a confederation than their wealthier fellow colonists.

The United States control about two-thirds of the imports and exports of the Bahama islands, which carry on a considerable trade with New York. The chief imports are food products, wines and liquors, cotton and other fabrics, hardware, etc. The exports are mostly fruits, fish, sponges and salt.

In 1860 the imports were $1,170,145; in 1864, $2,678,560, this difference resulted from the blockade running to and from the ports in the southern states of the American republic, then in rebellion. The exports of 1860 were $786,750, and in 1864, $23,361,990. In January and February, 1865, twenty steamers arrived at Nassau from those ports with 14,182 bales of cotton, valued at $2,773,145. The islands probably were not benefited by that trade, though some individuals enriched themselves by it. Extravagance and waste prevailed at Nassau. The government, however, took advantage of the windfall to pay off a debt of $200,000. After this unusual trade ceased the island of New Providence reassumed its wonted quietude. The sponge trade has greatly decreased. The Spanish authorities refuse to permit the spongers to work on

the reefs near Cuba. The trade also decreased owing to the heavy duty levied on this commodity in the United States. The legislature of the islands in 1883 placed salt on the list of articles to be imported free of duty. One great business of the Bahamas, that of wrecking, has likewise become greatly diminished, and is not likely ever to flourish again. Indeed, since 1864, it may be said that the wreckers' business has nearly ceased. The number of wrecks, complete and partial, in 1864 was 67; in 1871 it was only 39. The wreckers now devote themselves to the cultivation of fruit. This is due to various causes combined, namely, diversion of trade from the southern ports of the United States, erection of lighthouses, and increased use of steam. Marine casualties in former times threw a great deal of valuable property into the islands, of which a large portion was frequently exported. The exports in 1866 of native produce—salt, fish, sponges, fruit, etc.—were $888,520, and others, $921,860; in 1867 only $355,580 of native, and $780,655 not native. The depression has continued. The imports and exports of 1870 and 1872, and the exports of 1873 were as follows:

Year	Imports	Exports
1870	$1,419,850	
1872	1,005,250	$681,120
1873	1,131,530	783,065

A precarious increase in the exports because it is based on fruit, the crop of which is uncertain. The following was the fruit trade in 1873: Pineapples sent to the United States and England in the natural state, 422,934 dozens, value $193,835; in tins, 69,165 dozens, value $65,090; in cases, value $8,560. Other fruit exported, oranges, 2,252,000, value $19,110; bananas, 7,172 bunches, value $1,730; and about $3,500 worth of grapes, shadocks, lemons, limes, and melons. The imports of the islands in 1882–86 were as follows:

1882	1883	1884	1885	1886
$1,082,875	$1,165,720	$907,475	$1,175,300	$947,050

The annual number of vessels which entered the ports of the Bahamas is about 500 with nearly 100,000 tons.

Jamaica from its central situation, as regards the other West India islands, the United States, and the isthmus of Panamá, will have great trading advantages between these points. It is the fond hope of the Jamaicans that when the Panamá canal is completed, Jamaica will necessarily be a point of call, and must largely profit by the traffic which will pass in this direction. The staples of export of the island are sugar, rum, coffee, spices, and dyestuffs; next in importance stand ginger, rice, cotton, cocoanuts, cacao, honey and beeswax. The chief trade is with Great Britain.

The exports of 1870, 30,747 hogsheads of sugar, valued at $2,461,040; rum, 260 puncheons, $1,182,790; coffee, 7,671,564 pounds, value $1,139,950; pimento, 5,243,109 pounds, value $145,420. Imports of 1871, $6,655,000, and the exports, $5,245,000. Imports of 1878, $7,463,610, (including $3,785,385 from Great Britain.) Exports of 1878, $6,053,575, (including $4,772,920 to Great Britain.) Imports of 1879, $6,736,710; exports, $6,787,850. The exports of 1878 were: coffee, 9,572,714 pounds; ginger, 908,603 pounds; pimento, 6,195,109 pounds; rum, 18,115 puncheons; sugar, 26,066 hogsheads; logwood, 35,157. The total value of the exports in 1878 was below that of the six preceding years. In 1879, however, the exports of sugar rose to 29,000 hogsheads. The fruit exported—mostly to the United States—rose from $46,685 in 1875 to $197,250 in 1878. The following figures show the value of the trade in the following years to 1886 inclusive:

Year	Imports	Exports
1879–80	$7,375,985	$7,564,390
1880–81	6,963,495	5,892,470
1881–82	6,609,810	7,745,290
1882–83	8,127,055	7,347,230
1883–84	7,439,155	7,044,240
1885–86	6,628,615	6,400,590

The total imports for consumption in 1885–86 were drawn from the following countries: From Great Britain, 51.3 per cent.; United States, 41.1; Canada, 11.1; other countries, 3.5. Of the total exportation in the same fiscal year, $5,891,575 was for produce and manufactures of the country, and $1,009,015 for British, foreign, and other colonial produce and manufactures. Sugar for the first time ceased to hold the first place in the exports, being only 16 per cent.; fruit superseded it to the amount of 18 per cent. Turk's island, a dependency of Jamaica, imported from 1882 to 1886 inclusive, to the value of $680,130.

The Leeward islands, namely, Antigua, Montserrat, St. Kitts, and Nevis, Anguilla and the Virgins also had a considerable trade in the years 1882–86.

The following were the aggregate values of imports: Antigua, $4,044,635; Montserrat, $626,785; in the years 1878–80 the imports of Montserrat averaged $131,950, and the exports $164,815. The island's exports of sugar range between 1,200 and 2,000 tons. About 700 puncheons of raw lime juice, 300 hogsheads of concentrated juice, and an increasing quantity of fresh green limes are annually exported. St. Kitts and Nevis, $4,901,845; Dominica, $1,570,665; Virgin islands, $195,660; of Anguilla I can find no record.

The island of Barbados is gradually becoming the central mart of the Windward islands, even Trinidad looking to her for breadstuffs, in preference to importing them direct from the continent. Recently some attempt was made to revive the whale fishery round the island, which had been quite extensive in former times. The chief articles of exportation are sugar, molasses, cotton, wool, ginger, aloes, and several kinds of woods.

The following figures set forth the importance of the trade of this small but populous island:

Year	Imports	Exports
1850	$ 3,671,795	$ 4,187,675
1860	4,708,855	4,921,470
1870	5,131,105	4,677,125
1873–84	67,466,220	69,923,045
1885–86	8,770,910	

The Windward group, composed of St. Lucia, St. Vincent, Grenada, and Tobago, also present a fair show of commercial activity.

The imports of the four islands in 1882–86 were as follows: St. Lucia, $3,485,870; St. Vincent, $3,077,310; Grenada, $5,462,520; Tobago, $889,665.

Of the island of Trinidad I have already given information elsewhere. She carries on a considerable trade with the United States in lumber and provisions.

The imports of 1882–86 amounted in value to $64,458,395.

The principal imports of British West India islands are the food products, cotton goods, haberdashery, hardware, etc. The exports to Great Britain of all the islands in 1886 were $7,804,905. In 1886 the total tonnage entered and cleared throughout the British West India islands was 6,052,712 tons, of which 4,924,846 were British.

British Guiana exports sugar, rum, molasses, cacao, cotton, timber, dye-woods and dye-stuffs, shingles, charcoal, and cocoa-nuts. The imports are food products, wines, liquors, and manufactures of cotton, wool, linen, silk, iron, steel, etc.

The imports of the colony in 1873 were valued at $4,285,915. The total value of imports in 1875-86, $120,100,125, and of exports in the same years, $152,313,695. The United States treasury report compares the trade between 1871 and 1885 as follows:

Year	Imports	Exports
1871	$9,232,227	$11,598,922
1885	7,141,015	8,763,705

The total exports to Great Britain in 1868-72 amounted to $36,027,835; the total imports for 1871 were $9,485,000; the total exports in the same year were $13,745,000. The exports for 1876 were 119,981 hogsheads with fully 100,000 tons of sugar; in 1877, 111,156 hogsheads; in 1878, a year of long drought, 86,075 hogsheads. Nearly the whole of this last quantity went to Great Britain; 20,000 hogsheads went to the United States in 1876, and 30,000 in 1877. The rum exported in 1876 was 36,000 puncheons; in 1877, 32,581 puncheons; in 1878, 28,752 puncheons. The quantity consumed in the colony in 1878 was 330,392 gallons. The molasses exported, mostly to the United States and British provinces, was 14,320 casks in 1876, 19,862 in 1877, and 17,084 in 1878. The timber exports, nearly all to Great Britain, was in 1876, 464,436 cubic feet; in 1877, 357,430; and in 1878, 308,698. The yearly export of shingles is of about 5,0 0,000 yearly. During 1876-78, 32,266, 35,631, and 46,746 barrels of charcoal were respectively exported. About 1,250,000 of cocoanuts were also shipped out of the country. The chief exports in 1886 were: sugar, $7,288,700; rum, $767,780; molasses, timber, coffee, and cacao. Most of the exports were to the United Kingdom. The chief imports were flour, $504,470; rice, $858,965; pork, butter, lumber. In 1881, 971 vessels with 260,602 tons entered the ports of Georgetown and New Amsterdam.

The French West Indian islands, namely, Guadeloupe, Martinique, and St. Bartholomew, export sugar, molasses, coffee, cacao, roccou, cotton, hides, fruit, etc., and import edibles, wines, liquors, silk, cotton, linen and woollen fabrics, hardware, machinery, etc.

In 1870 the exports to France from Guadeloupe were estimated at $4,980,000; and the imports from the same country, $1,960,000. In 1873 the total exports of the same island were computed at between $5,000,000 and $6,000,000. The value of the exports of Guadeloupe in 1777, without including miscellaneous produce, has been thus summarized: sugar, 7,137,900 livres; coffee, 2,993,860 livres; indigo, 1,222,529 livres; cacao, 71,661 livres; cotton, 1,298,437 livres; and hides, 6,973 livres. The total imports and exports of Guadeloupe and her dependencies in 1884, footed up $10,460,000. There is an especial import tariff. The average sugar exports of 10 years, from 1877 to 1886, is 46,475 tons. Martinique's active trade is mainly with France. In 1869 the value of the island's imports was $6,172,485, and of the exports, $6,423,080. The aggregate trade of France with Martinique that year amounted to $8,076,910. The imports of Martinique in 1886 amounted to $5,490,000, and the exports to $4,750,000; about 35,000 tons of sugar were shipped this year. Little St. Barthélemy's export trade is limited to bananas, cassia, tamarinds, and sassafras. The United States treasury report compares the trade of the French West Indies as follows:

Year	Imports	Exports
1871	$9,927,200	$7,739,300
1885	5,712,800	5,075,900

French Guiana had close relations with Martinique till 1872, when the imposition of a duty on eau-de-vie from that island almost stopped its importation. Communication between different points of the colony is kept up by small steamers.

The imports in 1864 were $265,475, and the exports, $1,956,765; the imports in 1871, $1,180,683; and the exports, $511,202; the imports in 1885 amounted to $3,763,500, and the exports to $3,474,000.

The Danish islands in the West Indies—St. Thomas and St. Croix—export unrefined sugar and rum. St. Thomas had formerly a large trade, but it has now dwindled down almost to insignificance. The reason of this has been given elsewhere.

The yearly exportation is from 12,000,000 to 16,000,000 pounds of raw sugar, and about 1,000,000 gallons of rum. In 1877 the imports from Great Britain into the islands amounted to $1,126,855, and the exports to that country were $73,380; in 1881 the exports to Great Britain reached $177,600.

The Dutch West Indies deal mainly with their mother country, with the United States, and with Venezuela. Curaçoa sends oranges to Holland, and vegetables, salt, sugar, live-stock, fruits, goat, kid and deer skins to the United States and the neighboring republic. Dutch Guiana's chief exports are cacao, sugar, rum, cotton, indigo, and other dye-stuffs, and dye-woods. In former years she exported large quantities of sugar, but at present the industry is in a stagnant condition. The country exports also gold and a few diamonds.

In 1870 the exports to the United States amounted to $353,000. The great salt pans of the Dutch portion of St. Martin yielded in 1882, 276,434 tons of salt, most of which was exported. In the same year St. Eustatius exported 5,187 tons of yams, and 3,010 tons of sweet potatoes. Information on these islands' trade is rather meagre. I find, however, that they exported to Great Britain in 1884, $600,240, in 1885, $297,615, and in 1886, $250,580; and that in those years they received in produce and manufactures from the same country $45,505, $26,345 and $38,765, respectively. The average quantity exported from Surinam between 1849 and 1863 was 802,857 hundred-weight. The emancipation of the slaves took place in 1863; two years later the exportation had decreased to 151,842 hundred-weight. It rose soon after, but never reached the old average, for in the eleven years 1864–1874 it was only 212,906 hundred-weight. In 1876 the production was 218,115 hundred-weight, and the export, 198,274 hundred-weight. In the same year 262,907 hundred-weight of cacao were produced, and the export was 260,620 hundred-weight. The yield of cotton in 1876 was 3,806 hundred-weight, and of coffee, 245 hundred-weight. The total exports in 1876 were valued at 2,762,568 gulden or florins, of which sum 969,945 went to Great Britain, 872,277 to the United States, and 505,064 to Holland. Of the total imports, valued at 3,183,252 gulden, 1,228,408 came from Holland. During 1883 and 1884 the exports were 4,054,846 and 3,662,895 florins respectively, and the imports, 5,158,660 florins in 1883, and 5,286,136 florins in 1884. The staple produce thus exported were:

	1883	1884
Sugar, kilos.....	8,678,628	7,250,284
Cacao "	1,876,178	1,450,046
Coffee "	532	2,546
Molasses, litres...	1,082,481	526,980
Rum " ...	604,139	469,020

In 1884 the number of vessels which entered Surinam was 179 with 71,825 tons.

There is in Mexico a paper currency issued by several banks. The Monte de Piedad, or government pawn-shop, also has bank bills out from one dollar upward, which are current at par throughout the republic. The paper of the other banks is at a discount outside of the national capital.

The banking hours in the city of Mexico are from 10 o'clock in the morning till 4 in the afternoon, Sundays and holidays excepted. In other cities the hours are from 9 to 12 noon, and from 2 to 4 o,clock in the afternoon. The banks will cash letters of credit on British and American bankers. The principal diligence companies will furnish travellers with drafts on their brauches or correspondents in other towns, provided the amounts have been deposited in advance at the offices of such companies, who in the event of a tourist being robbed on the road, will repay the amount on his producing satisfactory evidence to one of the agents. Bankers will allow a higher rate of premium on drafts on New York than can be obtained in exchanging money.

Central America is also provided with some good banking establishments.

Guatemala has two or three, one of which has for its main object the encouragement of agriculture and manufactures; none of them are banks of issue. Salvador has one which went into operation about eight years ago, and has been very prosperous. Nicaragua has a bank of issue, loans, and discounts, which was chartered in 1871. There are also several persons in the republic who do an exchange and banking business. There is a national bank in San José. In December, 1876, a charter was granted for the establishment of a bank of issue, which commenced operations, but as the stockholders failed to pay in the capital, the government suspended it, and caused the paper that was in circulation to be redeemed. In 1881 a charter was issued for the foundation of another bank.

Colombia has a bank with power to issue and place in circulation its notes; the issue of bills being limited to $9,400,000. All private banks, of which there were several, were required to redeem within six months all the notes which they had in circulation. The banks' inspector was directed to visit all the private banks, and such as failed to comply with the foregoing order were to be closed up. Notes of private banks are not receivable at any government office. Panamá has no regular banks; the exchange business is in the hands of a few foreign merchants and companies. Gold, especially that of the United States, commands a premium of 35 to 40 per cent. in exchange for silver. Drafts are also high: one at sight on New York is worth 36 per cent. premium; on London at 90 days, 30 to 32 per cent.; on Paris at 90 days, 28 to 30 per cent.

Venezuela has two banks, but they are not authorized to issue bills or notes. In 1888 a company was organized in London with the intention of establishing a bank of issue in the republic, with the privilege of transacting a general banking business, and to establish agencies wherever they should be needed. The petition called for a charter to issue bank-notes; to loan money on mortgages, and negotiate the same in and out of the republic; to lend

money with or without security; to draw, discount and negotiate bills of exchange, notes payable, and all other classes of negotiable paper, as well as to purchase and sell metals in bullion or coined; and to receive in deposit money and other valuables.

Ecuador has likewise a number of banking institutions, all of which are connected with others established in Europe, on which they draw bills.

The empire of Brazil is provided with numerous banks, most of them, if not all, carried on upon the principle of limited liability. Many of such banks are branches of others having their head offices in Europe. Their business varies according to the objects for which they were founded. Some deal with exchange; others lend money on securities; and several were created to foster agriculture, stock-raising, or other branches of industry. Exchange on London is ordinarily from 20 to 30 pence per milrei, and on Paris from 300 to 400 reis per franc.

There are banks or banking agencies in almost every important commercial city; and some of them have had a very prosperous career, having been conducted with good judgment. Aside from the regular banks there is a considerable number of private persons who do a banking business exclusively, and others who do it in connection with mercantile transactions.

The Argentine Confederation, Uruguay and Bolivia likewise have banks, some of them with power to issue notes. The first bank established in Buenos Aires, as early as 1822, was in 1836 named the Casa de Moneda, and had then in circulation bills of the nominal value of 15,500,000 pesos, worth about 14 cents on the peso. Later, in obedience to the demands of the dictator Rosas, the circulation was so largely extended that the value of its paper sank to only three cents on the peso. In 1883 its currency notes amounted nominally to 400,000,000 pesos, worth about $16,000,000. There were in 1885 two banks of issue, besides a number of foreign banks and private persons doing a banking business.

In January, 1885, the two banks above referred to, after protracted runs, were obliged to suspend specie payments, and the national government exempted them for two years from the obligation of redeeming their notes in gold, and at the same time made those notes legal tender for the same period in the payment of both private and public debts. The paper of the two banks then in circulation aggregated 51,000,000 pesos nacionales. The cause of this trouble was, on the one hand, over-trading with foreign nations, and on the other, the reckless manner in which the government had used its credit abroad for the purpose of carrying out improvements of doubtful benefit, especially as there were private parties willing to accept franchises on reasonable terms. I am not aware that those banks have as yet resumed specie payments.

The government was in 1886 authorized by congress to create a national bank with power to issue notes to the extent of $40,000,000 in the form of cédulas hipotecarias, for the purpose of lending money on the security of landed property not exceeding 50 per cent. of its taxed value. The rate of interest was fixed at 6 to 8

per cent. a year, of which 1 to 2 per cent. should be applied to create a sinking fund for the gradual extinguishment of the issue. The bank was to receive 1 per cent. for commission, the nation guaranteeing the issue and cancelling the debt. A credit of $1,000,000 was to be opened at once to enable the bank to commence operations. On November 3d, 1872, a law was passed to establish national banks similar to those in the United States.

It is understood there are in the Argentine republic twenty-three banks. There is also a number in Uraguay, all established at Montevideo; a national one at Chuquisaca or Sucre, and another at La Paz in Bolivia.

Perú and Chili have had prosperous banking institutions for many years, a large portion of their capital being foreign. Most of them are conducted on the principle of limited liability.

There are some ten banks in Lima, and three in Callao. In Santiago de Chili there are four loan banks entitled to issue notes to bearer with interest, which notes must be withdrawn at a fixed date, and to make loans on real estate. The paper money issued by banks, which was in circulation in 1866, amounted to $12,911,443. There are four other banks in Santiago. Valparaiso, Iquique, Concepción, and Coquimbo have also regular banks or agencies, or private firms who transact exchange and banking business.

In Hayti there is a national bank which has authority to issue paper money, the value of which is not to exceed three times its capital. The bank is also empowered to issue a decimal coinage to replace the various coins in circulation.

In Habana, Cuba, a bank was established in 1856 by a joint stock company with a capital of $3,000,000, with authority under its charter to issue notes of a denomination not less than $50. Previous to this time only Spanish gold and silver coins were legal tender, the Spanish doubloon of $16 having the current value by law of $17, and its divisions in that proportion, throughout the western section of the island. During the revolutionary war, which commenced in 1868, the bank was compelled to throw into circulation an immense quantity of paper, and in that year suspended specie payments. Since that time its bills, though greatly depreciated, have been made legal tender for all debts; hence gold and silver rose in value.

There has been in Habana during many years a savings bank in a prosperous condition. Other banking institutions have been established from time to time, but have not, generally speaking, lived long. There is a large exchange business carried on between the chief cities of the island, and the commercial centres of Europe and America.

In the United States, under the laws authorizing the establishment of national banks, such associations may be formed by a number of persons—not less than five—subscribing, except in very small places, at least $100,000. The conditions are simple and by no means onerous, the only one which appears so being that requiring the bank to deposit with the national treasury registered interest, bearing bonds of the United States. Before 1882 every bank having a capital not exceeding $150,000 must deposit with the United States treasury such bonds to the amount of at least one-third of its capital; but the act of July 12th, 1882, reduced the minimum of deposit to one-fourth of the capital. Under the act of June 20th, 1874, $50,000 of bonds is the minimum required for all other banks, however large the capital.

At the end of 1886 there were, according to the comptroller of the currency, 2,868 national banks in operation, besides over 5,000 state banks, savings banks, and private banks and bankers. The circulation on the 30th of June of that year, consisted, aside from legal tender notes, and national bank-notes, of gold and silver bullion, gold, silver, and currency certificates, state bank notes, in the United States, in the treasury, in national banks, and in circulation through other banks.

Gold	$496,700,000	
Gold certificates	131,174,245	
		$627,874,245
Silver dollars, subsidiary silver, and silver certificates		422,925,629
Demand and compound interest notes		321,160
Fractional currency, about		7,000,000
Certificates		18,500,000
The total circulation was set down at nearly		$1,730,000,000

Every bank, before commencing its operations, must deposit with the comptroller of the currency a copy of its articles of association, a complete list of its share-holders, directors, and principal officers, all duly authenticated, and evidence that at least 50 per cent. of the capital is actually paid in. The comptroller may cause an examination to be made to satisfy himself upon these points, and may even refuse to allow the bank to begin business if he thinks that the purposes of its promoters are not in accord with the national banking laws. Once in possession of the comptroller's certificate the bank may commence operations, with all the rights, privileges, and franchises secured to it by the statutes, but it must at all times conform to all the laws governing its business.

By a special provision the banks existing under state charters were permitted to become national banks, after satisfying the comptroller that they were in a sound financial condition, and complying with all the requirements of the laws regarding national banks. On the security of its bonds deposited with the United States treasurer, the comptroller is bound by law to issue to it circulating notes to the amount of 90 per cent. of the market value, and not more than 90 per cent. of the par value of the bonds. Any bank may deposit more than the minimum of bonds, and may take out circulating notes for 90 per cent. of its deposit, provided its entire outstanding circulation against bonds does not exceed 90 per cent. of its capital stock actually paid in. The circulating notes handed in sheets by the comptroller are not valid until signed by the bank officers designated by the statute. There are besides numbers of banks and firms who are engaged in banking business, but have not the privilege of issuing bills or notes; to which must be added the numerous existing savings banks.

There were on the 7th of October, 1886, 2,001 national banks, whose respective capital did not exceed $150,000, aggregating $167,261,245; and 851, whose capital exceeded $150,000, and aggregated $380,979,485. The minimum of bonds required to be kept in deposit by all the banks of the former class

was $41,815,312, and by those of the latter class, $42,550,000. The actual circulation on that date was $303,176,776, inclusive of nearly $72,000,000 still outstanding, and no longer represented by bonds, but by lawful money deposited with the treasurer of the United States to redeem that amount. The $231,223,631 in circulation, for which the 2,868 national banks were responsible, were secured by their bonds. Banks may change their deposited bonds from time to time to increase and to reduce the amount within limits, and are required to inspect once a year the bonds held for them in trust by the treasurer. Thus it was that on the 7th of October, 1886, there were in circulation, aside from coin, United States legal tender notes for $346,682,016, and national bank notes for $303,176,776.

Dividends, Earnings, and Surplus of all the National Banks of the United States, 1870 to 1887.

Condensed from the report of the comptroller of the currency, December, 1887.

Year ending Sept. 1	No. of banks	Capital	Surplus	Total Dividends
1870	1,601	$425,317,104	$ 91,630,620	$ 42,559,438
1871	1,693	445,999,264	98,286,591	44,330,429
1872	1,852	465,676,023	105,181,942	46,687,115
1873	1,955	488,100,951	118,113,843	49,649,090
1874	1,971	489,938,284	128,364,039	48,459,305
1875	2,047	497,864,333	134,123,649	49,068,601
1876	2,081	500,482,271	132,251,078	47,375,410
1877	2,072	486,324,860	124,349,254	43,921,085
1878	2,047	470,231,896	118,687,134	36,941,613
1879	2,045	456,132,056	115,149,351	34,942,921
1880	2,072	454,215,062	120,145,649	36,411,478
1881	2,100	458,934,485	127,238,394	38,377,485
1882	2,197	478,947,715	133,570,931	40,791,928
1883	2,350	494,640,140	141,232,187	40,678,678
1884	2,582	518,605,725	147,721,475	41,254,473
1885	2,665	524,599,602	146,903,495	40,656,121
1886	2,784	537,663,648	157,064,778	42,412,803
1887	2,942	558,544,541	171,254,553	44,152,408

Year ending Sept. 1	No. of banks	Total net earnings	Ratio of dividends to capital	Ratio of dividends to capital and surpl's	Ratio of earnings to capital and surplus
1870	1,601	$55,810,819	10.12	8.35	10.96
1871	1,693	54,558,473	10.14	8.31	10.23
1872	1,852	58,075,430	10.19	8.33	10.36
1873	1,955	65,048,478	10.31	8.30	10.87
1874	1,971	59,580,981	9.90	7.87	9.68
1875	2,047	57,936,224	9.89	7.81	9.22
1876	2,081	43,638,152	9.42	7.45	6.87
1877	2,072	34,866,990	8.93	7.09	5.62
1878	2,047	30,605,589	7.80	6.21	5.14
1879	2,045	31,551,860	7.60	6.07	5.49
1880	2,072	45,186,084	8.02	6.35	7.88
1881	2,100	53,622,563	8.38	6.59	9.20
1882	2,197	53,321,284	8.73	6.81	8.88
1883	2,350	54,007,148	8.30	6.50	8.60
1884	2,582	52,362,788	8.00	6.20	8.00
1885	2,665	43,625,497	7.74	6.05	6.49
1886	2,784	55,165,886	7.96	6.17	8.02
1887	2,942	64,506,869	7.98	6.12	8.95

Savings Banks in the United States.

	1885-86	1886-87
Number of depositors	3,158,900	3,418,013
Amount of deposits	$1,141,530,578	$1,235,247,371
Average of each deposit.....	351.36	361.39

Jamaica has two banks which draw on their head offices in London; one of them is local; the other has branches in several other British islands, and in British Guiana; the last named colony possesses also a bank of its own. St. Thomas has a bank which draws on London, and a branch of one of the Kingston banks. The French islands have one bank each; but the Dutch islands seem to possess none.

As to insurance companies I find that Ecuador had in 1888 two fire insurance companies, and Brazil in 1886 one marine and fire insurance. In the United States the marine insurance companies are very numerous. There are also many life and fire insurance companies. The subjoined tables give interesting details on the last two branches of insurance:

Life-Insurance Business in the United States

Summary of business for six years of all regularly organized life-insurance companies, numbering 47 in the United States, 1879–1886

YEAR.	Total premium receipts	Total income	Total payments to policy holders	Expenses of management
1879	$53,977,918	$ 79,929,616	$50,289,386	$ 9,547,765
1880	55,249,253	79,739,589	55,020,519	10,963,337
1881	58,781,983	84,083,905	55,703,563	12,135,653
1882	64,181,473	89,755,879	55,800,359	12,976,334
1883	69,894,722	97,466,274	59,447,336	15,404,407
1884	75,608,986	101,924,731	61,216,589	16,183,955
1885	83,879,685	112,303,119	64,447,145	17,912,356
1886	94,053,037	123,612,234	63,958,854	21,308,662

YEAR	Total expenditure	Policies in force end of year		Admitted assets
		Number	Amount	
1879	$70,604,193	$ 694,665	$1,515,574,487	$431,614,410
1880	69,418,098	902,849	1,578,904,883	453,241,537
1881	70,806,699	1,069,178	1,676,920,201	461,068,114
1882	71,354,636	1,325,289	1,798,148,238	480,127,272
1883	77,798,743	1,657,999	1,959,567,870	501,689,754
1884	81,811,206	1,895,412	2,093,492,289	519,674,563
1885	86,205,932	2,170,277	2,300,070,595	551,742,332
1886	89,079,847	1,744,454	2,427,592,292	583,625,289

Statistics of fire insurance and losses in the United States during the years 1876-84 both inclusive:

Property losses for the nine years	$725,503,163
Losses to the insurance companies	404,344,513
Property losses in 1884	110,008,611
Losses to the companies in that year	60,679,818
Premiums received by the companies in 1884	92,431,482
Ratio of losses to premiums in 1884	59.9

The statistics of 1884 show that 30 per cent. of the aggregate losses by fire were the results of incendiarism. This incendiarism is believed to be fostered by the reckless competition among the insurance companies; many of the losses are caused by careless construction of buildings; 834 persons lost their lives by fire during the year 1884. In 1885 the property losses by fire in the United States were estimated at $102,818,706, and in 1886, $104,924,760, of which sums the insurance companies lost in 1885, $57,430,709, and in 1886, $60,506,564. The number of fires which occurred throughout the United States, was in 1885, 14,114, and in 1886, 15,222.

Archibald Boardman Boyd.

A few remarks on the men who, by their well-directed efforts have brought about the remarkable advancement of the Spanish American republics, would seem to be not out of place in this Manual. But no considerable space can be devoted to such a purpose in this edition. In future editions it is possible that something in this line may be done. For the present the compiler must content himself with giving a brief sketch of a man who, on the isthmus of Panama, by his enterprise as a journalist materially promoted the general interests of those growing nations.

It is well known that upon the discovery of the gold placers in California, thousands of brave and adventurous men flocked to the isthmus, striving to find their way to the new El Dorado. But at the same time a few hundreds chose the tropical isthmus itself as the field of their labors. One of the latter is the subject of this sketch, Archibald Boardman Boyd, to whose energy and talents Panama is indebted for the existence of the *Weekly Star* and *Herald* in English, the *Daily Star* and *Herald* in English, Spanish and French, and the *Estrella de Panamá* in Spanish. These papers count their subscribers by thousands, and there is not a port from British Columbia to San Francisco, from San Francisco along the Mexican and Central American coasts to Panama, and from Panama along the coasts of the several countries south of it, in which Boyd's name is not remembered as that of the genius who made the *Star* and *Herald* and the *Estrella* the medium for the transmission of the world's news to the countries lying on the two oceans. The *Star* and *Herald* has been a true friend and champion of Spanish American interests, an earnest propagator of everything to the benefit of the various sections; the upholder of their rights, and the disseminator of all procurable intelligence on their immense natural resources, which only awaited foreign enterprise and capital for their utilization. The merits and services of their leading men have found in it a recognition; and erroneous assertions and malicious misrepresentations too frequently appearing in print in Europe and elsewhere about the republics and their people, were never allowed to pass unnoticed or uncontradicted. Through it the outer world has learned a great deal of the strides those countries have taken since 1848; and the Central and South Americans now realize the high destiny which is in reserve for them in the great family of nations. Colombia and the other republics have recognized these valuable services in various ways. Whenever the history of South America shall be written, in the files of the *Star* and *Herald* and *La Estrella* will be found every incident of importance dispassionately set forth.

The same impartial, consistent and honorable nature which characterised Archibald B. Boyd was prominent also in his brother, James Boyd, his associate during several years, and afterward sole editor. Hence the high esteem in which both were held, either in social life, commercial transactions, or in newspaper or literary roles. That high esteem has also become the patrimony of Archibald's sons, Frederick, Archibald, and

Samuel, all notable members in isthmus life, and each of whom is the consular representative of one or more republics, Frederick as consul-general for Salvador being for several years the dean of the consular corps on the isthmus.

Many who are to-day wealthy, aye, the possesors of millions, well remember those '49, '50, and '51 days of Panama, and the courteous, sympathetic and practical "Boyd," to whose memory these lines are dedicated. And it may be added here that many of those alluded to retain their names on the *Star* and *Herald's* lists as a proof of their interest in those they knew at Panama when *but few steamboats* left that port, and they were made happy by the hearty and kindly attentions of Archibald B. Boyd.

The *Star* and *Herald*, now the property of a stock company, in which the brothers Boyd and their cousins in New York, and Mr. T. Spies are the stockholders, pursues the same policy established by the founder.

Special mention may be made of the Pacific Bank of San Francisco, California, one of the most successful commercial banks on the Pacific coast. Established in 1863 it is now doing a business of $225,000,000 yearly; collections are made in all parts of the coast, letters of credit issued available throughout the world, and money transferred by telegraph and cable to all countries so connected. It has also correspondents in all the commercial centres.

Hotel del Monte, at Monterey, California, is one of the most popular summer and seaside resorts of the Pacific Coast, not only on account of its superior accommodations, appointments, and management, but also for the beauty of its grounds, and for its advantage of climate. Lately destroyed by fire it has since been rebuilt on a larger scale, and has now an established reputation, not only on the Pacific coast, but among Eastern and European tourists.

St. Matthew's Hall.—This institution of learning was founded in 1866, and is located in the beautiful village of San Mateo, Cal., about twenty miles by rail from San Francisco. Rev. Alfred Lee Brewer, M. A. is the principal, and is assisted by a thoroughly competent staff of teachers. It is a school for boys under military discipline in a modified form, and takes a high rank. The course of instruction is designed to prepare youths for business or the university.

James M. Starr & Co., manufacturers of the "Starr" piano, have a thoroughly organized and equipped factory situated in the midst of a fine lumber country at Richmond, Indiana, and having ample water-power for factory purposes, enable them to produce fine pianos at a reduced cost.

IV. GOVERNMENT.

The present constitution of Mexico, or under its full name Estados Unidos de México, was adopted on the 5th of February, 1857, and afterward received several amendments until October, 1837, when the clause was repealed which forbade the reëlection of the president for the next immediate term. By the provisions of that fundamental law Mexico is a federative republic, composed of twenty-seven states, besides the federal district and two territories. Each of the states is self-governing as regards its own local affairs, while together they form one body politic. The federal district and the territories are under the immediate control of the general government.

The functions of government are divided, as elsewhere, into three departments, namely, the legislative, executive, and judicial. The legislative power is vested in a congress composed of two chambers, the senate with 56 members, and the house of deputies, with 227 members. The executive authority rests with a president elected for a term of four years, and who may be reëlected. The judicial power is centered in a supreme court of eleven proprietary members, named ministros, four supernumeraries, one fiscal, and one solicitor-general. There are, besides, eight circuit courts and thirty-seven district courts.

The 27 states are divided thus: frontier states, Sonora, Coahuila, Chihuahua, Nuevo Leon; states of the gulf of Mexico, Tamaulipas, Vera Cruz, Tabasco, Campeche, Yucatan; states of the Pacific, Sinaloa, Jalisco, Colima, Michoacan, Guerrero, Oajaca, Chiapas; and central states, Durango, Zacatecas, Aguas Calientes, San Luis Potosí, Guanajuato, Querétaro, Hidalgo, Mexico, Morelos, Puebla, and Tlaxcala. The federal district is the city of Mexico, capital of the republic, and the territories are Lower California and Tepic.

The upper chamber is composed of two senators for each state and two for the federal district, who must be at least 35 years old; their election being indirect, and proceeding from the respective legislatures of the states. They hold their seats for four years. The members of the other chamber are chosen for two years by popular suffrage, in the ratio of one for every 40,000 inhabitants, and for every fraction exceeding 20,000. The territories and federal district are also represented in this chamber. Both senators and deputies are paid for their services $3,000 a year each. Congress meets every year from April 1st to May 30th, and from September 16th to December 15th, and a permanent committee of both houses sits during recesses. The president is also elected by popular suffrage, and assumes his duties on the 1st of December following his election. He has the power of appointing six secretaries of state, namely, for foreign relations, the interior, justice and public instruction, fomento, which embraces public works and colonization, finances and public credit, and war and navy. These secretaries, forming the president's cabinet, have seats in both houses of congress, take part in the debates, and submit measures for consideration. The president himself at times uses his constitutional right to meet and act with the congress; he has no veto power, but he can make suggestions for reconsideration on measures adopted by congress, after which, if the legislative power makes no amendment, it is his duty to publish the law and have it enforced. Indeed, it is seldom that a law is passed by congress which has not been prepared and sanctioned by the executive authority. The election of the members of the supreme court of justice is also by the people, and for the term of six years.

In the republic of Guatemala the supreme executive authority is vested in a chief magistrate, chosen for six years, whose official title is presidente, and who exercises his functions with the aid of a number of ministers of state, appointed by himself. The legislative power resides in a national assembly, elected for six years by universal suffrage.

During the Spanish rule the administration of justice in Guatemala and the rest of Central America, now comprised in Honduras, Salvador, Nicaragua, and Costa Rica, was vested in the real audiencia ,composed of a regente, several oidores, a fiscal, and a secretary, the governor, captain-general of the provinces, being ex-officio president. The courts of first resort were filled by alcaldes mayores. Under the present constitution of the Guatemalan republic the administration of justice is entrusted to a supreme court, with four chambers of second resort at the capital, and one at Quezaltenango. There are also courts of first resort, and lower courts for petty cases and trivial offences. The jury system was adopted in 1872.

For purposes of civil government the territory of Guatemala is divided into 23 departments, and these are subdivided into municipalidades, each of which frames regulations for the management of its own affairs, subject to amendment by the supreme government. At the head of each department is a jefe politico.

The constitution under which Honduras is ruled was adopted in November, 1865, and greatly modified on the 1st of November, 1880. It vests the legislative authority in a congress or assembly of 37 deputies, chosen by universal suffrage, and the executive power in a president, also elected by popular vote for four years, who conducts his administration with the aid of a council of six ministers.

There is a supreme court, and other lower courts under it, charged with the administration of justice. The seat of government is at Tegucigalpa. For the purposes of local administration the republic is divided into 13 departments, which are subdivided into 60 districts, and the latter into 212 municipalidades. At the head of each department is a jefe politico, appointed by the national executive. The absence of a penal code caused much delay in the prosecution of criminals, and there being no good jails or prisons, offenders often escaped unpunished. Capital punishment being abolished, the severest punishment that could be inflicted was 500 blows with a heavy withe of the consistency of India-rubber though 200 were usually enough to end the sufferings of the culprit when applied with that design. In 1876, the political disturbances which had nullified the action of the courts being at an end, the supreme and lower courts were reorganized, and permitted freely to exercise their functions.

In Salvador the constitution of 1872 is still in force, though amended in 1880, 1883, and 1886. The legislative authority is vested in a general assembly composed of two chambers, namely, a senate whose members are elected every six years, and a house of representatives chosen every four years. The executive power is in the hands of a president, who is elected by the people, whose tenure of office is limited to four years, and who appoints four responsible secretaries of state to assist him in conducting the administration. The judiciary consists of a supreme court, of eleven magistrados, (one of whom is the president,) tribunals, juries, and inferior courts.

For internal government the republic is divided into fourteen departments, which are subdivided into districts, and the latter into cities, villas, pueblos, and aldeas. At the head of each department is a governor, and the alcalde of the principal town in each district is the chief authority of the district. Each

town has for its internal management a municipal corporation, chosen by the direct votes of the citizens, and consisting of an alcalde, a síndico, and from two to six regidores, according to the population. The supreme court is divided into two chambers of second resort, and one of third resort, all sitting at San Salvador, the capital. There are chambers of second resort also at San Miguel and Santa Ana. The laws of Salvador were codified in 1875. Trial by jury, which was first established in 1832, and soon afterward suppressed as impracticable because of the ignorance of the masses, was restored in 1872.

In Nicaragua the supreme authority is divided. The legislative power is vested in a congress, composed of two chambers—the senate with eighteen members, and the house of representatives with twenty-one. Both branches are elected by universal suffrage, the representatives for four years, and the senators for six. The chief executive power of the republic rests with a president chosen for four years, who is aided in the performance of his duties by a council of ministers, responsible to congress for their official acts, the ministers being the heads respectively of the departments of foreign affairs and public instruction, finance, interior, justice, war and navy, and public works. The seat of government is at Managua. The judicial authority is vested in a supreme court, and a variety of lower courts.

The republic is divided politically into seven departments—Granada, Leon, Rivas, Chinandega, Chontales, Matagalpa, and Nueva Segovia—which are subdivided into districts, and the latter into cantónes. There is a prefect at the head of each department, who is also an agent of the national treasury; a sub-prefect rules over each district, and a justice of the peace over each cantón. The supreme court of justice is divided into two chambers, one of which sits at Leon, and the other at Granada. The alcalde has cognizance in all civil cases not exceeding $100 in amount, and in simple infractions of municipal ordinances. Other cases must go before the juez de primera instancia, or judge of the first resort. Trial by jury was established in 1871, and in 1873 the death penalty was abolished. Incorrigible criminals of the male sex are sentenced to receive corporal punishment up to 500 blows on the bare back. Women sentenced for serious offenses are made to work in the hospitals, etc.

The government of Costa Rica is republican, popular, and representative. It is exercised by three distinct powers, each acting within its orbit. The executive authority is vested in a president who is elected by the people every four years, and with the aid of five ministers of state appointed by himself conducts the administration of national affairs. The legislative power rests with an assembly also chosen by popular suffrage for four years. The judiciary consists of a superior court, sitting at San José, the national capital, tribunals of first instance in the provinces, and alcaldes in the towns.

The political divisions are the provinces of San José, Cartago, Alajuela, Heredia, and Guanacaste, together with the comarcas, so-called, of Puntarenas and Limón. The provinces and comarcas are subdivided into cantónes, and these last into barrios. At the head of each province and comarca is a governor, and of each cantón a jefe político. The police department is under the governor, unless in especial cases the supreme government should assume the immediate control in certain localities. Each provincial capital has a municipal corporation, acting like the governors and other subordinate authorities, under the general ordinances provided for the whole republic. The supreme court of judicature has undergone many changes since it was first organized, that is to say, as soon as Costa Rica became a member of the Central American confederacy. Its members have at different periods been appointed by the executive, elected by the people, and chosen by the national legislature. At present they are elected by popular suffrage, the personnel consisting of the president of the full court, the presidents of the first and second sections, six justices, an attorney-general, a secretary, clerks, etc. The

administration of justice in the first instance is vested in courts sitting in each province with civil and criminal jurisdictions, except in San José, where the civil and criminal courts are distinct. In 1841 Costa Rica adopted a civil and penal code, and also a code of procedure. Within recent years the government, after obtaining the authorization of congress, appointed a commission to frame new codes of law. The fiscal code was published in 1885, and the following in 1887—the organic law to govern prosecuting officers; organic law of courts; regulation on public registration; and code of civil procedure; of all which further mention will be made in another division of this book.

The republic of Colombia is at present under the constitution promulgated on the 4th of August, 1886, by which the nine states that till then formed the Colombia n union, lost their sovereignty, and were reduced to the condition of mere departments, ruled by governors who are appointed by the national executive. The former organic law, known as the constitución de Rio Negro, not only recognized the autonomy of the states, but guaranteed the most liberal institutions. It must be confessed, however, that many abuses were committed under it. The supreme executive authority is vested in a president chosen for six years. The legislative power rests with a congress composed of two chambers, namely, a senate of twenty-seven members representing the nine departments, and a house of representatives with sixty-six members chosen by universal suffrage, in the ratio of one representative for every 50,000 inhabitants. Congress elects substitutes to occupy, according to seniority, the executive chair in case the president should die, or be temporarily absent, or incapacitated for the discharge of his duties. There is also a council of state and the president is aided in the performance of his duties by seven secretaries of state who are responsible to congress for their official acts. In the event of the president or designado being absent or unable to attend to the executive duties, then these duties will devolve on the secretaries of state in the order prescribed by the council of state, the first one being the minister of government. It seems that the president of the republic is not allowed to exercise the functions of that office without the limits of the department of Cundinamarca, which contains Bogotá the national capital. The judicial authority is vested in a supreme court sitting at Bogotá, in a superior court sitting in the capital of each department, with courts of civil and criminal jurisdiction, and in inferior tribunals.

Many of the departments retain some of the prerogatives they formerly had as states, foremost among them being that of managing their own finances. The nine departments are: Antioquia, Bolivar, Boyacá, Cauca, Cundinamarca, Magdalena, Panamá, Santander, and Tolima. The republic possesses besides the territories of Darien and Bocas del Toro. There is a number of islands belonging to the department of Panamá, such as the Mulatas archipelago, the Pearl islands, Coiba, Taboga, and Flamenco.

The republic of the Estados Unidos de Venezuela is ruled under a charter which underwent several amendments down to 1881. It is modelled on the constitution of the United States, though granting to provincial and local governments greater independence. The republic properly speaking is a confederation of eight states. Until 1881 there were twenty-one states and a number of territories, but in that year a redivision took place into eight large

states, each having its own legislature elected by universal suffrage, its own executive, budget, and judiciary; the main purpose of the alliance being for purposes of defense. The legislative authority of the confederation is vested in a congress which meets on the 20th of February of each year. It consists of two houses, the upper one being composed of two senators from each state, chosen by the direct votes of the people to serve for four years; and the lower house having one representative for each 25,000 of the population, also elected by the direct vote of the people, and to serve for two years. As soon as congress assembles the two chambers elect from their own members a council of state, consisting of sixteen members, and this council chooses a president of the republic, with two vice-presidents from its members, by ballot. It is supposed to be always in session, and the duty of its members is to act as a check upon the executive. They can veto his acts, but he cannot veto theirs. They have power to legislate during the congressional recess, and their acts are called decrees of the council, and are supposed to be reviewed by congress at the following session. The council elects the federal judiciary, and confirms the appointments of the president, thus having a share in the executive and legislative power of the government, and, to some extent, in the judicial, inasmuch as it has authority to remove as well as appoint judges.

In the federal district is the city of Caracas, the capital of the republic. The eight states are: Guzman Blanco, Carabobo, Bermudez, Zamora, Lara, Los Andes, Falcón, and Bolivar. There are five territories, namely: Alto Orinoco, Amazonas, Colón, and Yuruari. The boundary line between the republic and British Guiana has not been defined as yet. The official residence of the president is called the yellow house, which is said to be a gaudy structure of two stories with only twelve rooms, including four official parlors, a magnificent dining-room, etc. Occasionally official dinners are given there, and the president receives foreign diplomates in the grand salons. Venezuela shows much activity in developing her resources, and it is believed that next to the Argentine republic she is the most progressive republic of South America. The police arrangements in Caracas are excellent. Robberies and murders never occur, and an intoxicated man is rarely seen in the streets.

The constitution of Ecuador, adopted in 1832, suffered a number of amendments in 1835, 1843, 1861, 1869, and 1883. Under its provisions the executive authority is vested in the president, chosen for four years. The Presidential electors—900 in number—at the same time choose a vice-president, who in certain cases may be called by congress to occupy the chair of the chief magistrate to the end of his term. He is ex-officio president of the council. The legislative power rests with a congress of two chambers; that of the senate consisting of two senators for each province, elected for four years, one-half retiring every two years; and that of deputies, each of whom represents 30,000 inhabitants. The deputies are chosen for two years. Both senators and deputies are voted for by adults who can read and write, and are Roman Catholics. The president exercises his functions with the aid of four ministers of state, who individually and collectively are responsible to congress for their official acts. These ministers, together with seven other members, form the council of state. There is no veto power vested in the president, nor can he dis-

solve, shorten, or prorogue the sittings of congress. No citizen can enjoy any rights or privileges over other citizens, according to the constitution, but most of the Indians are held in bondage.

The administration of justice is vested in a supreme court, four superior courts in different centers, 152 provincial criminal courts, and 656 parochial justices.

The republic was divided in 1882 into ten provinces, namely: Chimborazo, Los Rios, Esmeraldas, Guayas, Imbabura, Leon and Azuay, Loja, Manavi, Oriente, and Pichincha.

Brazil is the only independent nation in America which is under a monarchial government. She has been an empire since 1822, and the present ruler is Emperor Pedro II. (Pedro Alcántara de Braganza), whose reign began in 1831, when he was still a minor. Brazil derives from Portugal the principles of hereditary succession to the throne, which exclud: the salic law, and permit females to reign. Dom Pedro's heir apparent is his daughter Isabel, married to Count d' Eu, a grandson of the late King Louis Philippe of France. The emperor's allowance from the treasury is 800,000 milreis a year, to other members of the imperial family 333,000 milreis are allowed.

The constitution of Brazil, adopted on the 25th of March, 1824, was amended in August, 1834, when self government was established in the provinces; and again in May, 1840. Under the fundamental law four powers are recognized in the state, namely, legislative, executive, judicial, and moderating, this last being a prerogative of the emperor, to be exercised when circumstances demand it. The legislative power rests, for the general affairs of the empire, in the legislative assembly, and for provincial affairs in the respective provincial assemblies. The general legislative assembly consists of a senate with sixty senators, and a congress with 125 deputies. The members of both houses are chosen by the people, but under different forms. The senators must be forty years of age or upwards, Brazilian citizens by birth or naturalization, and each must possess a clear annual income of not less than 1,600 milreis, or about $800. They are chosen for life at electoral meetings expressly convened, each of which nominates three candidates, out of whom the sovereign selects a senator. Each senator receives a salary of 9,000 milreis, or about $4,500 for the session. The deputies are chosen directly by popular suffrage in districts for the term of four years. Under a law of January 9, 1881, the election of senators and deputies was made direct instead of indirect, and the qualification for a voter was fixed at an annual income of 400 milreis, or about $200. One aspiring to the position of deputy must have an annual income of 800 milreis, or about $400. Minors, monks, and servants are not voters. Protestants are at the present time eligible to the legislature. Deputies are paid a salary of 6,000 milreis, or about $3,000 each session, besides their actual travelling expenses. The two chambers sit in general assembly at the opening and close of the session, and to deliberate on measures of import. The house of deputies has the initiative in the assessment of taxes, on matters relating to

the army and navy, and in the choice of the sovereign, should the throne become vacant. The senate has the exclusive cognizance of offenses committed by members of the imperial family, and by senators and deputies, if they were committed during the session of the legislative assembly. The senate is also invested with the prerogative of convoking the legislative assembly should the sovereign fail to do it within two months after the period fixed by law. Each house chooses its own officers.

The executive power is vested in the emperor, or in his absence from the empire with the consent of the legislative assembly, in the regent, assisted by his seven ministers, one of whom is the premier, and a council of state. The ministers are responsible for treason, corruption, abuse of power, and all acts in violation of the constitution, or of the rights of citizens. The constitution guarantees the liberty, safety, and estate of every Brazilian citizen, as well as his civil and political rights. Religious freedom is also guaranteed. From this responsibility they cannot escape by pleading orders from the throne. The executive functions comprise the convocation of the ordinary meetings of the general assembly, the appointment of commanders by sea and land, diplomatic and consular officers, bishops, governors of provinces, judges, and other imperial public officials; the declaration of peace or war, and the general execution of every measure voted by the legislature after it has become law. Among the sovereign's powers is that of granting letters of naturalization.

The moderating power gives the sovereign authority not only to select ministers, senators, and councillors, but temporarily to withhold his sanction from legislative measures, to convoke the assembly to extraordinary sessions, to dissolve the chamber of deputies, and to grant amnesties and pardons. The ministers are aided in the discharge of their duties by a council of state, which consists of twelve ordinary and twelve extraordinary members, all appointed by the crown for life, and whose duty is to advise the government when consulted on matters of administration and international affairs. The councillors of state are usually ex-ministers. The heir to the throne, from the date of his majority, is by right a member of the council.

The judicial power is independent. The judges are appointed for life, or during good behavior. There is a supreme court, which sits at the capital, Rio de Janeiro, and other lower courts.

The empire of Brazil is divided into 20 provinces, namely Amazonas, Pará, Maranhão, Piauhy, Ceará, Rio Grande do Norte, Parahyba, Pernambuco, Alagôas, Sergipe, Bahia, Espiritu Santo, Rio de Janeiro, Santa Catharina, Rio Grande do Sul, Minas Geraes, Matto Grosso, Goyaz, Paraná, and São Paulo; besides the Municipio Neutro, which is the city of Rio de Janeiro. Every city, town, and village has its own municipal council. The provincial governments are entrusted to a president in each, who is appointed by the crown, and represents the national authority. The president sanctions the acts of the provincial legislative assembly or parliament, and appoints the provincial officials. The assemblies control the local affairs of their respective provinces; the latter are organized on the federal principle, with little cohesion among them. The only connecting links between them and the monarch are the presidents or governors appointed by him.

The Argentine republic is a group of states which were at one time known as the "Provincias Unidas del Rio de la Plata." Her

constitution was framed in May, 1853, and modified in 1860, when Buenos Aires joined the confederacy. Under it the executive authority is vested in a president, chosen for six years by representatives of the provinces; the legislative authority is entrusted to a national congress, consisting of a senate with 30 members, being two from each province and from the capital, chosen for six years; and a house of deputies with 86 members, elected for four years, in the ratio of one deputy for every 20,000 inhabitants. One-third of the senate is renewed every three years; one-half of the deputies retire every two years. Both senators and deputies are paid for their services, each one receiving $5,000 per annum. A vice-president of the republic, elected at the same time and in the same manner, is president of the senate, but otherwise has no official power: in case of the death, inability, or absence of the president, he assumes the executive office. The president is commander-in-chief of the national forces, and appoints all civil, military, and judicial officers of the confederacy, including also the nomination of bishops, subject to the recognition of the nominees by the vatican. For every act of the executive department the president and his cabinet are responsible to congress. Both the president and vice-president must be Roman Catholics, and Argentines by birth, and neither of them can be re-elected for the next immediate term. The executive is assisted by five ministers of state. The constitution is, with a few exceptions, identical with that of the United States of America. The judicial authority is vested in a supreme court of five justices and an attorney-general. There are, besides, inferior and local courts. Trial by jury exists for criminal cases.

The president's salary is $30,000 a year, the vice-president's $15,000, and that of each minister of state $13,000. The following is the political division of the republic: Littoral provinces, Buenos Aires (federal district), Buenos Aires (province), Santa Fé, Entre Rios, and Corrientes; Andes, Rioja, Catamarca, San Juan, and Mendoza; central, Córdoba, San Luis, Santiago del Estero, and Tucumán; northern, Salta and Jujuy. The republic possesses, besides, the territories of Misiones, Formosa, Chaco, Pampa, Rio Negro, Neuquen, Chubut, Santa Cruz, and Tierra del Fuego. By a treaty concluded with Chili in 1881, the latter recognized the right of the Argentine confederation to all the country east of the crest of the eastern ridge of the Andes, including most of Patagonia, and a small part of Tierra del Fuego. The governors of the various provinces possess extensive powers. They are elected by the people for three years. The provinces have their own legislatures, and in the management of their own local affairs are independent of the central government.

The República Oriental del Uruguay has been an independent nation since August 25, 1825, and was recognized as such in the treaty of Montevideo of August 27, 1828. She is governed under the constitution promulgated on July 18, 1830, and recognizes three distinct powers. The legislative is vested in a congress composed of a senate and a house of representatives, both houses meeting for the transaction of business every year from February 15th to July 15th. During recess a permanent committee of two senators and five representatives forms at the capital the legislative authority. The senate consists of one member for each department, chosen for six years, one third of the number being elected every two years. The representatives are elected for three years, in the proportion of one

for every 3,000 male adults who can read and write. In 1887 there were 19 senators and 53 representatives.

The executive authority is in the hands of a president who holds office during four years, without the privilege of re-election. The president is assisted by a council of five ministers of state, who are respectively the heads of the departments of the interior, foreign relations, finance, war, and marine, and one who is charged with affairs connected with worship, justice, and education. The judiciary is independent, and consists of a supreme court, and several lower courts in the departments and districts.

The republic is divided into 13 departments, named Cerro Largo, Colonia, Durazno, Florida, Guadalupe, Maldonado, Minas, Montevideo, Paysandú, Salto, San José, Soriano, and Tacuarembo.

Paraguay has a congress composed of a senate and house of deputies. The senatorial term is for six years, and that of the deputy four years. One third of the former and one half of the latter are chosen every two years. The executive authority is vested in a president elected for four years, who is assisted by five secretaries of state. There is also an inactive vice-president chosen. A high court and several inferior tribunals attend to the administration of justice.

The country is divided into twenty-three partidos, governed by jefes and the justices of the peace, assisted by municipal councils. The boundary with the Argentine republic on the eastern and southern parts is the middle of the channel of the Paraná river from its confluence with the Paraguay until its left bank becomes one of the boundaries of Brazil on the western part, the channel of the Paraguay from its confluence with the Paraná. The channel of the rivers is common to the navigation of both states.

The constitution of Bolivia, originally framed by the liberator Simón Bolívar, on the 25th of August, 1826, underwent important amendments in 1828, 1831, 1863, and 1880. It guarantees to the citizens of the republic civil liberty, security of life and property, and equality of rights, the free expression of thought, either by speech, writing, or the press; liberty to remain in or to leave the country with their property, equality in the levying of taxes or contributions, from which none can be exempted; hereditary offices, privileges, and entails are abolished. No person can be arrested—unless taken *in flagrante delicto*—without previous notification of the cause; trials and judgments are public. The executive authority is vested in a president chosen for four years by universal suffrage. The legislative authority rests in two chambers, the senate and house of representatives, both elected by universal suffrage. The president is assisted by vice-presidents, and five ministers of state. The capital of the republic, formerly at La Paz, is now at Chuquisaca or Sucre. The judiciary is a distinct and independent power, and consists of a supreme court, and the requisite number of inferior courts, and local tribunals.

The political division of the territory is in departments, provinces, and cantons. The departments are La Paz de Ayacucho, Cochabamba, Potosí, Chuquisaca or Sucre, Oruro, Santa Cruz de la Sierra, Tarijá, and Beni. Atacama formerly belonging to Bolivia is now owned by Chili. Each department has a governor, who is in direct communication with the general government. The subdivisions have their corregidores, and alcaldes, subordinate to the governor.

Perú declared for independence in July, 1821, and after a protracted war obtained her freedom in 1824. Under the constitution adopted in October, 1856, which was amended in November, 1860, the government is republican, and is divided, as in the North American union, into the legislative, executive, and judicial branches. The legislative power is vested in a congress consisting of a senate, and a house of representatives. The senators are chosen by the electoral colleges of the provinces of each department, two when the department has two provinces, and one more for every other two provinces. The deputies are elected by the people in the ratio of one for every 30,000 inhabitants, or fraction exceeding 15,000. The parochial electoral colleges choose deputies to the provincial colleges, and the latter elect the representatives to congress, and also the municipal councils. The executive authority is vested in a president chosen for four years; there are also two vice-presidents. The president appoints his five ministers of state, and other national officials, including the intendentes of departments, and the prefects and sub-prefects of provinces; the prefects nominate the governors of districts. The president may be impeached for high crimes and misdemeanors, the house of representatives preferring the accusations, and the senate passing judgment. The vice-presidents take the executive office only in the event of the president's death, or inability to discharge his duties. Every decree of the president must be countersigned by one of his ministers. The judiciary consists of a judge in each province; a superior court at the capital of each department, and a supreme court of appeal at Lima, the national capital. There are also tribunals of inferior rank which have cognizance in petty civil cases, or criminal offenses.

The republic is divided for the purposes of civil government into eighteen departments, two littoral provinces, and the separate province of Callao. The departments from north to south are: On the coast, Piura, Lambayeque, Libertad, Ancachs, Lima, Ica, Arequipa, Moquequa, and Tacna; in the sierra, Cajamarca, Huanuco, Junin, Huancavelica, Ayacucho, Apurimac, Cuzco, and Puno; in the montaña region, Amazonas and Loreto. As a result of the late war with Chili, the latter annexed in 1882 to her own territory the province of Tarapacá, and the Lobos islands. The Chilians also occupy the province of Tacna for ten years, at the expiration of which the people of the country will decide by vote to which republic they prefer to belong.

The government of Chili has been from the earliest days of its organization in the hands of the landed aristocracy, whose members have usually monopolized the three powers into which it is divided by the national constitution, adopted on the 25th of May, 1833, and amended in 1874. The government may justly be called a strongly organized and centralized oligarchy, which pursues a uniformly conservative policy, and while looking after public welfare does not lose sight of the especial interests of the ruling class. Under the constitution it is, however, recognized that the national sovereignty resides in the people. The three branches of the government are: The legislative, consisting of a chamber of deputies with 126 members elected for three years, one-third of them renewed every year; the members must have a yearly income of $500, at least; they are chosen in the ratio of one for

every 20,000 inhabitants. The senate with forty-three members, chosen indirectly in each province for six years; the latter chamber has concurrent jurisdiction with the other in framing laws, and with the executive in the confirmation of appointments, and in certain other acts; persons to be eligible for senator must have an annual income of at least $2,000. The executive authority is vested in a president chosen by indirect election for five years, and, pursuant to a late amendment, may not be reëlected for the next immediate term. He conducts the government with the assistance of a council of state, whose members are partly appointed by himself, and partly by the deputies; he has charge of the diplomatic relations, and controls the army and navy. He may assume the command in person of either force by first obtaining the sanction of the senate. His power is almost absolute, for he appoints the intendents of provinces, governors of departments, and other officials. The last war with Perú has given the executive more of a military character than it ever had before. Elections for senators and representatives are in the main controlled by the government, whose candidates are generally chosen. The narrowness of the territory makes a successful revolution quite difficult. The five ministers of state can sit in either house of congress, and take part in its deliberations, and may be at the same time senators or deputies, in which case alone they may vote in the respective chamber. The president's salary is $18,000 a year. The judicial power rests with a supreme court sitting at Santiago, the capital of the republic, four courts of appeal, courts of first resort in the departmental capitals, and subordinate courts in the districts.

The republic of Chili is divided into twenty-two provinces, which are subdivided into sixty-eight departments, and there are, besides, two territories. The departments and territories are divided into 855 sublegations, and 3,068 districts. The provinces and territories are named as follows: Megallanes, territory, Tierra del Fuego, straits of Magellan, and coasts as far north as 47 degrees S. latitude. Under a treaty with the Argentine republic, Chili retained a small strip on the west coast of Patagonia, and the straits of Magellan, ceding to her Argentine neighbor the rest of Patagonia and Tierra del Fuego, excepting its eastern portion. Antofagasta, territory. Provinces—Chiloé Llanquihue, Valdevia, Arauco, Cautin, Malleco, Bio-Bio, Concepción, Ñuble' Maule, Linares, Talca, Curicó, Colchaqua, O'Higgins, Santiago, Valparaiso' Aconcagua, Coquimbo, Atacarma, Tarapacá, and Tacna, under temporary' control.

The government of Hayti, which since the country became independent, has been under presidents, dictators, a king, and an emperor, now is theoretically, pursuant to the fundamental law of June 14, 1867, republican. That instrument constituted the government in three distinct branches, namely, legislative, executive, and judicial. It vested the legislative branch in a national assembly formed of two chambers, the senate and house of commons; the former being composed of thirty members appointed for six years by the other chamber from a list laid before it by the electoral colleges; one-third of the senators are elected every two years; the house of commons is elected for three years by the direct vote of all male citizens of good repute. Both senators and deputies receive pay during the sessions of the assembly. The

executive authority, which is in the hands of a president, should agreeably to the requirements of the national charter be chosen by the people without the privilege of reëlection, but in late years the election has been generally made by the chambers, and occasionally by the troops. The non-reëlection clause has also been ignored. The nominal term of the president is for four years, but seems to be practically for seven years. Insurrections have often cut it short. The seat of the national government is at Port-au-Prince. The judicial power rests with a supreme court; there are superior courts in the capitals of departments, and inferior tribunals in the political subdivisions.

The republic is divided into departments, and these into arrondissements and communes. The laws are founded on the civil code of France.

The republic of Santo Domingo is a confederacy of five states. The legislative authority is vested in a congress of two houses, namely, the consejo conservador with twelve members, and the tribunado with fifteen members The members of both houses are chosen indirectly, with restricted suffrage, for four years. The president is also elected indirectly for four years. He is assisted by four secretaries of state. Few presidents have been allowed to serve out their terms. In late years the people have seemed disposed to abandon the old insurrectionary habits, and to live in peace. The general government has jurisdiction only in general affairs. Its seat is in the city of Santo Domingo. There is a supreme court at the capital, a court of first instance in each state and district, and inferior courts for the administration of justice.

The republic consists of five states, which by their legislatures control their own local affairs. The five states are named Santo Domingo, Santa Cruz del Seibo, Concepción de la Vega, Santiago de los Caballeros, and Azua. There are also two districts, the La Plata and Samaná. The towns have councils of their own.

Cuba, till the promulgation of the national constitution, was under absolute rule, the governor captain-general, who usually held the rank of lieutenant-general of the royal army, being an autocrat, or at least he wielded more power in the island than his sovereign had in the mother country. He was the superior officer in every branch of the public service, including the treasury and navy, and ex-officio president of the superior court as well as of every municipal council throughout the island, and he was likewise clothed with the royal patronage over the church. The only laws to govern his policy were the royal orders he received from time to time. A rebellion occurred in Cuba in 1868, having in view the establishment of an independent government, but it was unsuccessful, and the rebels accepted peace under the terms offered them in 1878. The island was then recognized as one of the provinces of the Spanish monarchy, and is supposed to be entitled to the same rights, privileges and constitutional guarantees that the other component parts of the kingdom enjoy, and to be duly represented in the Spanish córtes, etc. The judicial power is vested in the audiencia or superior court, and in alcades mayores, and justices of the peace.

The island is divided into governments, distriots, partidos, and cantónes. The officers who under the old régime held the positions of governors and

lieutenant governors invariably were military men, and they had an assessor who was of the legal profession, and their adviser in matters of law. The island has the isle of Pines, and several smaller coast isles and cays.

Porto Rico was treated as a colonial appendage of the Spanish crown, and subjected to the same restrictions and disadvantages as Cuba was. Finally, on the 28th of October, 1870, she was declared to be no longer a colony, but an integral portion of the Spanish monarchy. San Juan is the capital of the island.

The government of the United States is based on the constitution adopted on the 17th of September, 1787, to which ten amendments were added in December 1791, and five more down to 1870. The organization is that of a federal republic, composed originally of 13 states, but now numbering 38, besides the district of Columbia, which contains the city of Washington the federal capital, and several territories. The legislative power is vested in a congress, composed of the senate and the house of representatives. The senate consists of members chosen by the respective state legislatures for six years; that body is supposed to represent the states as such. To be qualified for the senate the candidate must be at least 30 years of age, must have been a citizen of the United States for nine years, and be a resident of the state for which he is chosen. The senate has legislative and executive powers, and can sit also as a high court of impeachment, but its sentence is restricted to removal from office and disqualification.

The house of representatives is composed of 325 members, or one for every 154,000 inhabitants, chosen directly by the male citizens over 21 years of age of the several states, who may be qualified and registered according to the laws of their respective states. The members are elected every second year for two years. Representatives must be not less than 25 years of age, must have been citizens of the United States at least seven years, and must be residents of the states for which they are chosen. Neither race nor color affects the rights of citizens, but the franchise is not absolutely universal. Some states require one year's residence within their territory for a citizen to vote. Michigan and Maine only require three months. Untaxed Indians are excluded from the list of voters; in most states convicts, in some states duellists, and fraudulent voters; in others, the possession of a certain amount of property, or the payment of taxes, or registration is necessary for qualification, and in one at least, persons unable to read are not permitted to vote. The number of representatives is determined by the census taken every ten years. The regularly organized territories are represented in the house by a delegate from each, who is authorized to debate on subjects in which his territory is interested, but cannot vote. The delegates are elected as are the representatives, with the exception that in the territories of Utah and Wyoming women are allowed to vote.

Senators, representatives, and delegates are paid $5,000 a year each, besides their travelling expenses by the most direct route of travel. The speaker of the house is allowed by law $8,000 a year. The executive authority of the republic is vested in a president, elected for a term of four years by an absolute majority of the elec-

tors chosen by popular suffrage, each state choosing as many electors as the aggregate of its senators and representatives to the national congress, and voting as a unit. A vice-president is chosen in the same manner and at the same time as the president. The president is not only the chief executive of the government in civil matters, but also the commander-in-chief of the army and navy, and of the militia of the several states when called into the service of the union. He has the power to veto all laws enacted by congress, but his veto may be nullified by the law being re-enacted by a two-thirds vote of each house. The president must approve or veto every act of congress laid before him within ten days. If he fails to do either, it becomes a law. The vice-president of the republic is *ex officio* president of the senate. In case of death, resignation, incapacity, or dismissal of the president, he assumes the executive authority for the remainder of the term; and the senate appoints a vice-president *pro tempore*. On the death of the president and vice-president, the secretary of state, and after him in their order other members of the cabinet, becomes the acting president for the remainder of the term. The president of the United States receives $50,000 a year, with a residence and certain allowances. He is assisted in the discharge of his duties by the secretary of state, of the treasury, of the interior, secretary of war, of the navy, by the postmaster-general, and attorney-general, the last being the head of the department of justice. These functionaries, like other officers appointed by the president, must be confirmed by the senate. They hold office during the pleasure of the president, and are paid an annual salary of $8,000 each. The vice-president receives the same salary.

The judicial authority of the republic is vested in a supreme court, and in circuit and district courts. Federal justices and judges as well as other officers connected with the judiciary, such as district attorneys and marshals, are appointed by the president with the advice and consent of the senate. Laws concerning only the states immediately, are among the reserved rights of the states, and as such are vested in the state legislatures. Each state has its governor, whose duties are usually analogous to those of the president of the republic, as far as the several state governments are analogous to that of the union. In most of the states the governor has but few unimportant appointments. In the state of New York, for instance, nearly all officers and all judges are elected by the people. In the territories the governor, judges, and other officers connected with the administration of justice are appointed by the president of the United States; but each territory has its legislature for the management of its local affairs, the members of which, as well as the delegate to congress, are elected by the people of the territory. The people also choose their municipal officers.

No senator or representative can, during the time for which he was elected, be appointed to any civil office of the federal government, which has been created, or the salary or emoluments of which have been increased during such time. No person holding an office under the United States can be a member of either house

during the time he holds such office. Any military or naval officer elected president or vice-president of the republic must resign his commission. Those offices are incompatible with military rank, though the president is ex-officio commander-in-chief of the army and navy, etc.

The states are the following, those marked with * being the original thirteen. Maine, *New Hampshire, *Vermont, *Massachusetts, *Rhode Island, *Connecticut, *New York, *New Jersey, *Pennsylvania, *Delaware, *Maryland, *Virginia, *North Carolina, *South Carolina, *Georgia, Alabama, Mississippi, Louisiana, Ohio, Kentucky, Tennessee, Indiana, Illinois, Missouri, Arkansas, Michigan, Florida, Texas, Iowa, Wisconsin, California, Minnesota, Oregon, Kansas, West Virginia, Nevada, Nebraska, and Colorado. The territories are Arizona, Dakota, Idaho, Montana, New Mexico, Utah, Washington, and Wyoming; to which may be added Alaska and the Indian territory, which have not as yet a regular territorial organization.

Since the establishment of the government under the constitution of 1787, the presidents of the republic have been:

George Washington	1789–1797
John Adams	1797–1801
Thomas Jefferson	1801–1809
James Madison	1809–1817
James Monroe	1817–1825
John Quincy Adams	1825–1829
Andrew Jackson	1829–1837
Martin Van Buren	1837–1841
William H. Harrison	March–April, 1841 (died.)
John Tyler	1841–1845
James Knox Polk	1845–1849
Zachary Taylor	1849–1850 (died.)
Millard Fillmore	1850–1853
Franklin Pierce	1853–1857
James Buchanan	1857–1861
Abraham Lincoln	1861–1885
" "	1865 (murdered.)
Andrew Johnson	1865–1869
Ulysses S. Grant	1869–1877
Rutherford B. Hayes	1877–1881
James Abram Garfield	March–Sept. 1881 (murdered.)
Chester Allan Arthur	1881–1885
Grover Cleveland	1885

Whose term expires on the 4th of March, 1889.

Under arrangements existing at the end of 1878, the British colonies situated in or near America were grouped into eleven administrative divisions, some of which embrace what had formerly been separate colonies. Leaving out the dominion of Canada, Newfoundland, and the Falkland islands, which are not included in the scope of this manual, the other divisions or groups were as follows: the Bermudas; the Bahamas; British Honduras or Belize; Jamaica with Turk's and Caicos islands and the Caimans; the Leeward islands, comprising Antigua with Barbuda, Montserrat, St. Christopher or St. Kitts, Nevis, Anguilla, the Virgin islands and Dominica, all united under an act of parliament passed in 1871; the Windward islands included Barbados, St. Lucia, St. Vincent, Grenada, and Tobago; but in 1885 Barbados was detached and placed under a separate government; Trinidad; and finally, British Guiana, known also as Demerara.

These possessions, as regards their government, are divided into two classes, namely; crown colonies, in which the crown has entire control of legislation, the administration being carried on

by officers controlled by the home government; and colonies with representative institutions, wherein the crown has a mere veto on legislation, the home government retaining the control of public officers. The following shows the class of government of each of the aforesaid divisions:

Possessions.	Form of government and title of the executive officer.
Bermudas	Representative ... Governor
Bahamas	" ... "
British Honduras	Crown ... "
Jamaica	" ... Gov.-in-chief and Capt-general.
Leeward Islands	Representative ... Governor
Barbados	Crown ... "
Windward Islands	Representative ... "
Trinidad	Crown ... "
British Guiana	" ... "

The Bermudas are a group of about 100 small islands and islets, of which at most twenty are inhabited. Hamilton, the seat of government, is in the centre of Main island. Since 1684 the governors have been appointed by the crown. The laws of the colony are enacted by a local legislature consisting of the legislative council, and the house of assembly. The governor is aided by a privy council of nine members named by the crown, and who also constitute the legislative council. The other house has thirty-six members, four of whom are named by each of the nine parishes. The governor's salary is $14,730 a year. In the absence of the governor the senior military officer administers the government. Much of the judicial administration is in the hands of unpaid magistrates.

The chief islands of the group are Main, Great Bermuda, otherwise called Long, St. George, Ireland, Boaz and Watford, Paget's, Somerset, Smith's, St. David's, Cooper's, Nonsuch, Rivers, Ports, and Godets. The whole group is divided into nine parishes. Ireland island is wholly occupied by the royal dockyard, and other naval establishments.

The Bahamas are a chain of islands, of which twenty are inhabited, and a large number of islets and cays. The executive authority is conducted by a governor, with the aid of a council of nine, composed partly of official and partly of unofficial members. The legislative power resides in the governor, the legislative council of nine members, and the representative assembly of twenty-nine members. The title of the present chief executive officer is governor, commander-in-chief, vice-admiral, and ordinary; his salary is $10,000 a year. There is a vice-admiralty court which sits at Nassau, the capital of the colony, situated in the island of New Providence. There are likewise inferior courts for minor cases.

The principal islands are New Providence, Abaco, Harbor, Eleuthera, Inagua, Mayaguana, Andros, Great Bahama, Ragged, Rum Cay, Exuma, Long, Crooked, Acklin, Long Cay, Cat, Watling's (now known as San Salvador), the Berry, and the Beminis. The Turk's and Caicos islands, formerly belonging to the group, were detached in 1848 and placed under the government of Jamaica.

British Honduras is a crown colony, the administration being carried on by officers under the direction of the home government. The chief executive officer is a governor, who is assisted by a privy council consisting of the commander of the regular force, the colonial secretary, treasurer, and attorney-general. There is also a legislative council composed of the chief justice and the four officials above named, together with not less than four unofficial members named by the crown, or provisionally appointed by the governor, subject to the crown's confirmation. The governor is president of the council; his salary is $9,000 a year, and the seat of government is at Belize. The administration of justice is entrusted to a supreme court, presided over by a chief justice, and of district magistrates; there are also justices of the peace.

British Honduras was under magistrates elected annually until 1786, from which time, the settlement as it was called, was ruled by superintendents, except between 1790 and 1797 when the system of elective magistrates was restored. In the latter year the superintendency was reëstablished and maintained until the 12th of May, 1862, when the settlement was declared a colony and placed under a lieutenant-governor, subject to the governor of Jamaica. This dependency ceased by virtue of letters patent of the 2d of October, 1884, when the officer administering the colony was made governor, and commander-in-chief.

The island of Jamaica and its dependencies is ruled by a governor-in-chief and captain-general, who has to assist him a privy council consisting of the senior military officer in the island, the colonial secretary, the attorney-general, and such other persons, not to exceed eight in number, as may be named by the queen, or provisionally appointed by the governor-general, subject to the queen's confirmation. The governor is expected to consult in all cases with the privy councillors, excepting only when the matter to be decided would in his judgment sustain material injury by the consultation, or be too unimportant to require their advice. He may act in opposition to the advice and decision of the councillors, whenever he shall deem it right to do so; but in this case he must make a report to the home government with his reasons for rejecting the advice of the privy council. There is also a legislature composed of nine ex-officio and nominated members, and nine elected members, or one for each electoral district. The governor-in-chief receives a salary of $30,000 a year, and the capital is Kingston. The judiciary consists of a supreme court of judicature, a vice-admiralty court, district courts, and justices of the peace.

The island is divided into nine parishes; the number of electors out of a population of upwards of 580,000 was in 1887, 9,298, or one elector to every sixty-two persons in the island. In 1865 during the great negro outbreak the legislature of Jamaica passed a law to abolish the then existing constitution, and to empower the queen "to create and constitute a government for this island, in such form and with such powers as to her majesty may see fitting." Thus ended a representative institution that had existed for 202 years, which had exercised powers in some respects even greater than the house of commons in Great Britain. Governor-in-chief Grant brought out in August, 1886, an order in council to establish a new form of government. The new legislature was designated the "Legislative Council of Jamaica," and consisted at first of the governor and six official and three non-official members. A privy council was also provided for. The existing régime, as to the number of official and appointed members of the legislative council, resulted from an order by

the queen in council, dated May 19, 1884. The civil list of the colony in September, 1886, amounted to $82,700 for the salaries of the governor and his private secretary, the colonial secretary, and nine other chief officials of the administration, without including the salaries of the justices, officers, and clerks of the supreme court, which exceeded $42,000. The Turk's and Caicos islands were attached to Jamaica in 1874. There are also three small islands called Caimans, which are dependencies of Jamaica. Grand Caiman is the chief, and its capital is Georgetown; Boddentown, Prospect, and East End are the other chief towns. The affairs of the Caiman islands are managed by a body consisting of justices and a vestry, composed of magistrates appointed by the governor of Jamaica, and elected vestrymen. The enactments of this body became law when sanctioned by the governor. Grand Caiman has a court of petty sessions, and a grand court (with three justices at least presiding), held annually at Georgetown. The other islands are called Little Caiman and Caiman Brac. Among the dependencies of Jamaica are the Morant and Pedro cays, which were taken possession of on behalf of the British crown in 1862 and 1863. Their official annexation was officially declared to be from June 1, 1882.

The Leeward islands confederacy since its organization has been ruled by a governor, who is assisted by federal and local executive councils. The governor's residence is at St. John's, Antigua, and his salary is $15,000 a year. Each of the islands has its own local government.

Antigua is under the immediate rule of the governor of the confederacy. It has an executive council appointed by the crown; also a legislative assembly partly appointed by the crown, and partly elected by the people. It has, besides St. John's, five other towns, and about 100 villages of emancipated slaves. Barbuda, an island situated thirty miles north of Antigua, is a dependency of the latter. Her local ruler is called a magistrate.

Montserrat, whose principal town is Plymouth, is ruled by a president subject to the general government at Antigua, but has an executive council and a representative assembly formed of officials and crown nominees. St. Kitts or St. Christopher is under a president subordinate to the governor of the Leeward islands; his salary is $4,000 a year. From 1834 to 1870 it was ruled by a lieutenant-governor, though on several occasions the incumbent was called president, and at others administrator. Nevis is under the same president as St. Kitts. Its head town is called Charlestown. They have an executive council, and a legislative assembly that meets at St. Kitts, composed of official and unofficial members all nominated by the crown. Nevis furnishes to the assembly three of the unofficial members. Anguilla is a small island also belonging to the presidency of St. Kitts, whose local ruler is a magistrate with a salary of $1,100 a year. Dominica sends representatives to the legislative assembly at St. John's in Antigua. The ruler is a president, and the chief town is Roseau or Charlotteville. The island has a local legislature, of whose numbers seven are elective and seven nominated by the crown. The Virgin islands form a group of about 100, 50 of which, including Tortola, which is the largest, Anegada, Virgen Gorda, Jost Van Dyke's, Guano, Beef, Thatch, Prickly Pear, Camanas, Cooper's, St. Peter's, and Salt, belong to Great Britain and are a part of the Leeward confederacy. Their executive officer is called president.

The colony of Barbados has representative institutions, but not responsible government. The government consists of a governor, legislative council of 9 members appointed by the queen, and a house of assembly of 24 members elected annually. The executive part of the administration consists of the governor, the commander of the troops—usually a major-general, Barbados being the headquarters of the British military forces in the West India islands—the colonial secretary, the attorney-general, another member named by the queen; and finally, one member of the legislative council and four members of the house of assembly appointed by the governor. The governor's salary is $15,000 a year, and the capital is Bridgetown.

Barbados is the most ancient colony of the British empire, having become so in 1625, and was organized as a separate government in 1885. The governor has also the title of commander-in-chief.

The Windward islands form a confederacy under a governor-in-chief and commander-in-chief, who resides in the island of Grenada, and has a salary of $10,000 a year. Each of the islands has its own local administration. For the administration of justice there is a court of appeal at the capital.

Grenada has a lieutenant-governor, a council of twelve and a legislative assembly of 17. The capital is St. George. The Grenadines, small islands situated between Grenada and St. Vincent, belong, some of them, to the former. St. Lucia's local administration is conducted by an administrator, subordinate to the governor of the Windward islands, aided by an executive council, and a legislature consisting of the administrator and a council composed as the queen may direct. Justice is administered by a judge, from whom in civil cases there is a resort to the court of appeal of the Windward islands, and by three magistrates, whose decisions are liable to review by the judge. In criminal cases tried by the superior court facts are decided upon by a jury of twelve, as in England. The ruler of St. Vincent is a lieutenant-governor, with a salary of $5,000 a year. The legislative council of the island is composed of officials appointed by the crown. From 1776 to 1833 St. Vincent was a separate government under its own governor. It was afterwards a member of the Windward confederacy with headquarters in Barbados; but in 1885 St. Vincent, Grenada, St. Lucia, and Tobago were constituted as the confederacy of the Windward islands. Tobago's capital is Scarborough. Its local government is a lieutenant-governor with a legislative council of seven members, and a house of assembly of 16 chosen by the parishes.

The island of Trinidad has been a British possession since 1797. It is now under a governor with a salary of $20,000 a year, and has an executive council and a legislative council. The capital is Port of Spain. The government of the colony of British Guiana consists of a governor with a salary of $25,000 a year and $12,000 more for contingencies, a court of policy, and combined court. The functions of an executive and legislative council and house of assembly are performed by the governor and court of policy, except in matters of taxation and finance, which are dealt with by the combined court, composed of the governor, the members of the court of policy, and six financial representatives. The court of policy is constituted with five officials and five elective members, the official ones being the governor, attorney-general, government secretary, auditor-general, and immigration agent-general. The capital is Georgetown. For the administration of justice there are a supreme court, and several inferior courts, as is explained below.

The civil list is renewed every seven years. The colony is divided into five electoral districts. These districts elect for life one or two kietzers, seven in all, and one or two financial representatives, six in all. When a vacancy occurs in the court of policy the seven kietzers nominate two candidates, one of whom is chosen by the court to fill the vacancy. The boundaries between British Guiana and Venezuela are not yet defined. The supreme court has a chief justice and two puisne judges. Appeal in cases involving £500 and upwards is to the privy council. There are an inferior court, courts of admiralty and vice-admiralty, of petty debt (by stipendiary magistrates), of bail and review (of magistrates' decisions). One judge presides over the supreme criminal court, and there is also an inferior criminal court. There is a police magistrate in the capital, and a stipendiary magistrate at each of the districts.

The colony includes the three settlements of Demerara, Essequibo, and Berbice, named after the principal rivers; it is divided into thirteen districts. The Roman Dutch law, modified by orders in council and local ordinances, is applied in civil cases; the criminal law is based on that of Great Britain,

and is administered in the same way, save that there is no grand jury. Questions of law are decided in the court of crown cases reserved.

The French colony of Guadeloupe comprises Guadeloupe or Basse-Terre and Grande-Terre, separated by the narrow channel called La Rivière Salée or Salt Stream, the isles of Marie-Galante, des Saintes, La Desirade, St. Barthé or Bartholomew, and two-thirds of that of St. Martin, occupied on the south side by the Hollanders. The capital is Basse Terre. The government of Guadeloupe and its dependencies rests in a governor, a privy council of six members, and a general council of 30 members; this general council has the management of certain local affairs and funds; but in all matters of general or national import the country is subject to the supreme government of France. The colony is represented in the national parliament by one senator and two deputies. The judiciary consists of a court of appeal composed of the president, eight councillors, an auditeur and a procureur-général; courts of first instance; and justices of the peace.

There are three arrondissements, namely, Basse Terre, Pointe-a-Pitre, and Marie-Galante, with a mayor at the head of each. La Capesterre, St. Martin, Pointe-Noire, St. Bartholomew, des Saintes, La Désirade, Lamentin, Le Monle, Petit Canal, Port Louis, St. Anne, and St. Francois, head towns of cantons, also have mayors.

Martinique is under a governor, assisted by a privy council of seven, and a colonial council of twenty-four members, chosen for five years. Like the council of the sister island, Guadeloupe, it has the management of certain local affairs, but in all matters of national import it is subject to the supreme government of France. Fort de France is the seat of government. The colony is represented in the French parliament by a senator and two deputies. The judiciary consists of a court of appeal with a president, nine councillors, and a procureur-général; a court of first instance, and justices of the peace.

There are two arronndissements, namely, Fort-de-France, and St. Pierre, with a mayor at the head. The chief towns of cantons are Anses d' Arlets, Diamant, Ducos, Francois, Lamentin, and Le Marin, each having a mayor. There is also a commune called Riviére-Pilote, which is administered by a commission composed of sixteen members.

In French Guiana the chief authorities are the governor and the military and naval commanders, a director of the interior, a procurator-general, and a director of the penal establishment. The governor is aided by a privy council presided over by him, and whose members are the chief officials and three prominent citizens; there is also a colonial council of sixteen members chosen by the colonists for the management of certain local affairs and funds. In matters of national import the country is subject to the government of France. The seat of government is at Cayenne. The colony is represented in the French parliament by a deputy. The administration of justice is in the hands of a court of appeal, a court of first instance, and justices of the peace in the cantons.

The colony includes the island of Cayenne, and is divided into the districts of Cayenne and Sinnamary, and subdivided into fourteen communes. There are several islets on the coast; that of La-Mere is a penal colony.

The Danish islands of St. Thomas and St. Croix are ruled by governors, the chief officer residing at Charlotte Amalie, the only town on the first named, the Danish government having removed the headquarters of its West Indian islands from St. Croix in 1871.

St. Croix, besides some small negro villages, has two garrison towns, namely, Christiansted on the north coast, and Frederickated, popularly known as West End, on the west coast. St. Croix was entrusted by France in 1651 to the Knights of Malta. In 1733 it was bought by Denmark for 167,000 rix dollars, or about $142,500.

The Dutch island of Curaçoa is under a governor, who also rules over the isles of Bon Ayre, Oruba, Little Curaçoa, St. Eustache, and the Dutch portion of St. Martin.

Surinam, or Dutch Guiana, has belonged to Holland since 1814; it was placed, together with the Dutch West India islands, under one government in 1828 with the capital at Paramaribo. In 1845 Surinam was detached, and Baron Van Roders, the first governor, introduced many improvements, a number of them directed to ameliorate the condition of the slaves, and to facilitate trade with friendly nations. Several other innovations were also established. The code Napoleon of France was accepted, subject to modifications by orders in council. A house of assembly was created with not less than nine, nor more than thirteen members, four of whom were to be appointed by the government, and the rest chosen by electors for six years. All citizens paying a tax of 40 gulden a year are electors. The administration of justice is entrusted to a supreme court at Paramaribo, three cantonal and three district courts.

The governor's orders become law when sanctioned by the assembly, and confirmed by the king. The decrees of the colonial house of assembly are often overruled by the national assembly of the Netherlands. The president and four permanent members of the supreme court are appointees of the crown. The governor's residence is at Zeelandia, a little to the north of Paramaribo. The chief settlements are in the lower valley of the Surinam, or between that river and the Saramacca on the west, and the Commewijine on the east. The coast line extends upwards of 220 miles to the mouth of the Maroni or Marrowijine river, which is the boundary of French Guiana.

The public revenue of the Mexican republic is derived chiefly from duties on imports and exports, probably to the amount of 60 per cent. The other sources are internal taxes, nearly three-fourths being derived from stamps, and contributions from the states, which add about 25 per cent. for federal purposes to nearly all state taxes. Then there are other items which are classified as services, profit, and minor branches, apart from a few unclassified items. The revenue during the fiscal year ending June 30, 1887 had a very perceptible increase, exceeding that of 1882–83, which had yielded the largest amount so far recorded in the financial history of the country. The net receipts of 1886–87 were $31,168,352, an increase of $3,357,443 on the preceding year. The increase was attributed by the treasurer-general to the growth of import duties, to the increase of nearly $2,000,000 on the sale of stamps, and the new tax on salaries, which amounted to $885,560. At the same time the treasury had to meet unusually heavy payments. Punctuality in payments has restored Mexican credit, and given

firmness to Mexican values, and even caused them to be quoted higher than they had ever been before. Under the authorization of congress the government contracted a loan, the proceeds of which will be applied to consolidate the nation's financial system. The following tables furnish the exact condition of Mexican finances.

The revenues and expenses were as follows for the years given:

Years	Receipts	Expenditures.
1870–71	$16,033,000	$15,000,000
1877–78	16,128,807	22,103,046
1880–81	23,000,000	25,449,000
1881–82	28,279,008	37,522,009
1882–83	30,690,000	45,499,000
1883–84	28,285,000	51,005,000
1884–85	27,280,000	52,286,000

During the past twenty years the revenue has doubled, while the expenditure has been more than trebled. Receipts and expenditures in the year ending 30th of June, 1885.

Revenue from imports and exports	$15,877,947
" " internal taxes	8,773,711
" " services, profits, and minor branches	5,698,980
" " unclassified items	309,797
Credits at the beginning of the year	7,209,556
Credits and Taxes	$37,869,991
Outside of the budget:—	
Supplements and loans for short intervals	$2,636,264
Receipts not provided for in the budget, or which might disturb the balance of the account	86,453,665
	$126,959,920

Of this amount $53,177,756 appear on both sides of the account, credited and debited to the stamp and post offices; of the remainder there is about $22,000,000 of unpaid treasury warrants due to the mortgage and national banks; about $4,500,000 is made up of balances due, and various small items.

The ordinary expenditures of the several departments of the government were	$44,477,886
Sums awaiting classification in the hands of responsible agents	6,270,710
Expenditures not provided for in the budget	68,442,468
Credits at close of the year	7,839,356
	$126,959,920

The $68,442,468 are made up of the $53,177,756 appearing in the account of receipts; of a balance of $14,633,041 against the government under the headings of receipts and expenditures not provided for in budget, of loans for short intervals, etc. of the account for 1883–84; and of several small items. There is a deficit, not clearly defined in the foregoing account, but it will appear in the account of assets and liabilities of the treasury.

Receipts and expenditures of the fiscal year ending June 30, 1886.

Balance at the beginning of the year	$7,839,356
Revenue from customs	15,394,734
" " internal taxes	8,764,790
" " services, profits, etc	4,038,206
" " sundry receipts	183,166
Supplements and loans for short periods	2,332,094
Receipts not provided for in the budget	112,724,872
Total	$151,877,158

Expenditures.....	151,877,158
which total includes the ordinary expenses of the several branches of the government, and the following amounts:	
Unclassified items.....	$7,883,405
Extraordinary expenses.....	113,442,822
Balances at close of year.....	4,386,731
Total.....	125,712,958

The following are the budget estimates of revenue for 1887, and expenditure for the years ending June 30, 1887, and 1888:—

Revenue of 1887.....	$31,800,000
Expenditures of 1887.....	31,735,936
" of 1888.....	36,270,451

The result of the heavy expenditures in late years brought on a financial collapse at the end of the fiscal year 1884–85, when the unpaid deficits amounted to nearly $27,000,000, besides other current liabilities. A decree of June 22, 1885 discharged the floating debt with an issue of $25,000,000 at six per cent; another reduced the salaries of all public employés; a third consolidated the national debt into new bonds at three per cent. a year, from and after January, 1890. The following statement gives the exact financial situation of the republic down to January 1, 1886, from which it will be seen that no "claims or demands arising from the *de facto* governments which ruled in Mexico from December 17, 1857 to December 24, 1860, and from June 1, 1863 to June 21, 1867," are recognised. The Maximilian loans, thus unrecognised, amount to about $200,000,000.

Situation of the Mexican treasury on the 30th of June, 1885.

Available funds, as per account rendered of receipts and expenditures for the fiscal year ending June 30, 1885.....	$7,899,355
Two balances and one credit aggregating.....	408,188
Balance against persons entrusted with federal funds, as appearing in the account aforesaid.....	6,270,710
Deficit at the end of the financial year.....	36,924,663
Total of the assets.....	$51,442,911
Balance in favor of losses of mint.....	$2,018,593
Due on account of loans for short period.....	608,115
Balance in favor of the banks.....	8,994,921
" " of contractors of several departments of the government.....	1,090,676
Deposits, civil and military.....	958,901
Treasury notes remaining unpaid at close of the financial year.....	21,958,898
Deficits of financial years previous to 1883–4 still due.....	8,224,570
Deficits of financial year ending on 30th of June, 1885.....	7,505,697
Unredeemed certificates for harbor walks at Vera Cruz.....	66,478
Sundry small claims against the treasury.....	16,062
Total.....	$51,442,911

The following is a rough estimate of the national debt:

Consolidated debt.....	$167,000,000
Claims and other liabilities—the amount not yet ascertained, but will be included in the consolidated debt.....	30,000,000
Floating debt to be covered by treasury bonds.....	25,000,000
Subsidies and other claims secured by contract.....	24,000,000
Total.....	$246,000,000
Reduction of capital and arrears of interest due to the composition with creditors, and other savings.....	86,000,000
Total debt.....	$160,000,000

Pursuant to o decree of June 25, 1885, the admitted liabilities were consolidated. The consolidated debt bears interest at the rate of 1 per cent. in 1886, 1½ per cent. in 1887, 2 per cent. in 1888, 2½ per cent. in 1889, and 3 per cent. in 1890 and all sudsequent years. By an arrangement since made with the British bondholders the amount of the debt due them has been fixed at $69,958,875 or £13,991,775.

The conversion of the national debt has not yet been completed. The part

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of the debt payable in London, including the new bonds to be given in exchange for those of the English debt, amounts to nearly £14,000,000.

The following is the condition of the Mexican debt after the decree of June 25, 1885, as per account to the council of foreign bondholders.

Nature of debt.	Amount.
English debt as above	$69,958,875
United States debt	242,400
English convention of 1851	8,393,342
Spanish conventions	2,408,408
Padre Moran	393,722
Internal debt, convertible into new bonds	56,725,417
Total, convertible into new bonds	$133,119,164
Not convertible:—	
Treasury loan of 1885	$25,000,000
Subventions and contracts, about	24,000,000
Unascertained claims, estimated	27,000,000
United States government	1,275,124
Grand total	$210,394,288

In 1887 the arrangements between the Mexican government and the British bondholders was in operation. The dividends due on July 1, 1886, and January 1, 1887 were duly paid, as were also those of July 1, 1887, and January 1, 1888.

The real property of Mexico, exclusive of mines, ports, rivers, and other public property, was valued at $3,549,060,000 in 1883, of which amount $240,000,000 belonged to the nation.

The revenue of Guatemala proceeds from various sources, one-third or more being from customs, to which must be added internal taxes, and other minor items. The republic is heavily in debt both abroad and at home.

The revenue for the four years 1880-83 was as follows:

1880	$3,844,412	1882	$4,411,886
1881	4,812,646	1883	4,054,861

The increase of revenue in 1881 and 1882 resulted from the sale of property which had been held by the church. The revenue for 1886 was $4,540,000, and the expenditure, $4,485,000. For the fiscal year July 1, 1886, to June 30, 1887, the appropriations amounted to $2,252,471, and an extra sum of $326,800 was afterward granted for contingent expenses. No provision was then made as to the foreign debt. The following was the financial condition in 1886:

Home debt	$6,570,694
Foreign debt (bearing 6 per cent. interest, and 1 per cent. for the sinking fund, to January 1, 1887	4,609,090
Treasury notes issued in June, 1886	500,000
Loan at 85, in August	200,000
Treasury notes issued in September	200,000

Owing to financial distress the government had been obliged to suspend payment of the English debt for one year from August 1, 1885. The government has since arranged matters connected with British creditors. A committee on the debt sent to London the first remittance of interest on the Guatemalan bonds, which caused these securities to rise rapidly in value. There was also collected since January 1, 1888, the sum of $210,000 to be applied to the payment of the coupons of the internal and external debts. Thus Guatemala may soon find herself free from financial embarrassments.

The republic of Honduras suffered during many years of financial distress, resulting from internal and external wars, which with only short interruptions lasted till the middle of 1876; and also from an unfortunate loan contracted in Europe for the purpose of building an inter-oceanic railway, in which operation she was victimized. This matter will be explained further on. During the years of political trouble the expenditure exceeded the receipts,

and the deficits were covered by loans; hence a considerable internal debt was incurred. There has been a considerable improvement in the management since 1880. The revenue is mainly derived from customs and excise duties.

The revenue and expenditure from 1880 to 1884 were as follows:

Years	Revenue	Expenditures
1880-81	$1,120,262	$ 972,656
1881-82	1,208,878	700,000
1882-83	1,387,363	1,368,645
1883-84	1,311,583	1,131,836

The actual receipts for 1885 were $994,780. For each of the two financial years, 1886 and 1887 (July 31), the revenue was estimated at $994,780, and the expenditure at $996,160. The foreign debt consists of English loans amounting to £3,222,060, including interest at the end of 1887, and a French loan of £2,176,570, or a total of £5,398,630. No interest has been paid since 1872, and its accumulation had in 1887 exceeded £6,718,788. The debt arose from three loans; the first contracted in London in 1867 for the nominal amount of £1,000,000; the second issued in London and Paris in 1868 for the nominal amount of £2,490,108; and the third, negotiated at the London stock exchange in 1870 for the nominal amount of £2,560,000. The first and third loans were at 10 per cent. interest, and issued at the price of 80, and the second loan was at 6 per cent. and issued at 75. When the bonds were issued they were sold at par, but the banking house and agents absconded with the proceeds, and Honduras was left in the lurch, having received only about $1,000,000 worth of railway material in return for the bonds. On the 1st of January, 1887, the bonds were quoted at 7 cents on the dollar. The history of the proposed inter-oceanic railway has been given elsewhere. If paid, the interest and sinking fund on the three loans would foot up annually $3,478,500, which is much more than the estimated total receipts of Honduras. The internal debt was computed in 1886 at about $750,000.

The revenue of Salvador is derived mostly from customs and excise. The largest item of expense is for the army. The country is free from foreign indebtedness, but owes a heavy internal debt.

The following are the items of receipts and expenditures for the years 1882-87:

Years	Revenue	Expenditures
1882	$4,549,209	$4,416,454
1883	4,061,020	4,001,654
1884	4,067,000	4,057,000
1885	3,695,250	3,556,449
1886	4,480,307	4,271,828
1887	2,780,524	2,529,486

The figures for 1887 are mere estimates. The home debt was in June, 1885, $7,147,659.

Nicaragua draws two-thirds of her revenue from government monopolies on spirits, tobacco, and gunpowder, and the remainder mostly from import duties, and a tax on slaughtered cat-

tle. The expenditure is to maintain a military force, to cover the interest of the public debt, to pay salaries, and to support the church, schools, etc.

The following table gives the revenue and expenditure for the years 1883-86:

Years	Receipts	Expenditures
1883	$1,969,569	$1,712,994
1884	1,885,563	2,091,126
1885	1,801,727	1,816,520
1886	1,594,000	1,999,000

The revenue from customs was in 1882, $731,426; 1883, $615,130; in 1884, $704,104.

According to an official statement the total amount of the public debt at the beginning of 1887 was $1,592,000, as follows:

Interior loan and rest of consolidated bonds	$ 311,000
Paper money, private loans	708,000
Custom house bonds	390,000
Sundry creditors	188,000
Total	$1,592,000

Nicaragua has no foreign indebtedness, other than a balance (provided for but remaining undemanded) of about $20,000 for her share of the old federal debt. In December, 1886, a loan was raised in London of £285,000, or $1,425,000 in 6 per cent. bonds secured by a mortgage on the net earnings of the railways under control of the government, and on a portion of the customs revenue which yielded $704,000.

The sources of government income in Costa Rica are customs duties and a few other items of taxation, the monopoly of liquor and tobacco, and the profits of the railroads, postoffice and telegraph lines.

The revenue and expenditures were as follows for the years given:

Years	Receipts	Expenditures
1883-84	$1,586,561	$1,985,426
1884-85	2,559,866	
1885-86	2,387,290	2,936,756
1886-87	2,436,190	3,188,142

The expenses defrayed for 1887-88 were $3,447,380. The yield of the custom houses at Limón and Puntarenes in 1887 was $1,194,526; and that of the liquor and tobacco monopolies, $1,564,383. The railroads produced a net income of $23,955. The indebtedness incurred abroad to construct the railways was estimated, with the interest accrued, to amount on the 1st of January, 1888, to a little over $19,000,000. The internal debt on the 31st of March, 1886, was $873,826. The whole had been paid up before the end of 1887.

Colombia derives her revenue from customs duties, monopoly of salt and tobacco, excise, revenue of the post-office, mining dues, and $250,000 a year from the income of the Panamá railway. The republic is heavily in debt both at home and in Great Britain.

The receipts and expenses of the treasury were as follows from 1874 to 1883:

Years	Revenue	Expenditures
1874-75	$4,879,897	$2,654,901
1876-77	3,114,619	2,779,410
1877-78	4,883,800	7,271,933

The deficit of this year resulted from larger expenses of the war department owing to a revolution, and from a partial decrease of the foreign trade while the strife was going on.

1879-80	$ 5,651,905	$5,773,575
1880-81	6,339,205	6,400,095
1881-82	4,650,060	4,410,635
*1882-83	*5,917,000	9,429,545
1883-84	5,155,000	4,000,000

The actual receipts of this year were set down at $6,063,990. In 1886 the estimates of receipts were $5,104,000, and the expenditures $3,960,000.

For the biennial period 1887-88 the revenue has been officially estimated at $20,890,000, and the expenditure at $22,893,645. The republic being under a centralized government the latter receives now all the revenue that was formerly received by the several states, and pays out all the expenses of administration. The financial condition of the republic is a very unsatisfactory one. The external debt, mostly owing in Great Britain, is set down at $11,158,090, and the internal at $11,057,628. The interest on the foreign debt has been paid with great irregularity, and in October, 1887, eight years' arrears were due. The whole foreign debt, including the arrears of interest unpaid, amounts to over $13,254,875. There is, besides, a large amount of paper money in circulation. A law of 1886 authorized the executive to borrow $15,000,000, pledging the future earnings of Colombia in the Panamá canal, and also a part of the customs revenue, the proceeds of the loan to be chiefly applied to the conversion of the present debt.

According to the last official report the total foreign debt of Colombia in 1888 was £2,719,143 or about $13,595,715, which is among the smallest sums owed abroad by the Spanish-American republics.

The public revenue of Venezuela is derived from customs and inland and states revenue. The customs comprise import dues on foreign merchandise, together with the interest, fines, and storage merchants have to pay by reason of such importations. Inland revenue is derived from the sale of national stamped paper, stamps for local and foreign postage, and other branches; the profits of telegraph lines; consular fees collected abroad; contributions from the territories; one-third of the duties on the salt consumed and exported; one-third of transit import duties; twelve and a half per cent. upon import duties; and taxes on coffee, cacao, indigo, cotton, and hides exported. The revenue of the states consists of two-thirds of the duties on salt, and two-thirds of the transit dues. The country has a heavy foreign debt, and also a large internal one.

The revenue for 1874-75 was $5,824,676, and the expenditures $5,100,560; about 40 per cent. of the former was applied to payments on the national debt. In 1880-81 the national revenue was $4,680,000 and the expenditure $4,448,000; of the former $3,840,000 represented duties on imports. In 1885 the revenue was

*Estimate.

$6,102,885, and the expenditures $7,855,675. For 1886-87 the estimates of revenue and expenditure were made to balance at 27,635,000 bolivares, or about $5,527,000; and for 1887-88 at 27,695,000 bolivares, or about $5,539,000. The foreign debt, including accrued interest, amounted on the 30th of June, 1879, to $54,347,818, the home debt aggregated $12,662,172, of which $7,075,208 formed the consolidated 5 per cents. In 1872 the government paid interest on its loans, but suspended payments in September, 1878, and resumed in March, 1879. Early in 1885 the public debt amounted to $21,833,180, consisting of foreign 3 per cent. debt, $13,608,080, consolidated 5 per cent. $7,233,409; and floating debt $991,641. The foreign debt, which had grown to about $55,000,000, when interest payments were resumed, was consolidated into new 4 per cent. bonds in 1888. In 1886 the foreign debt was 67,739,437 bolivares, or $13,547,887.40, and the internal, 39,666,969 bolivares, or $7,933,393.80, making a total of $21,481,281.

The sources of revenue in Ecuador are duties on imports and exports; tithes, a tax of one per thousand on property, and registrations, and an occasional sale of public lands. The proceeds from customs and tithes are by far the largest items, the amount of the former being more than double that of the latter. The tithes represent one-third of the actual aggregate of the tax which the church collects. The next item of importance is the one per thousand tax on property. The government is largely indebted, both at home and abroad.

The revenue for 1875 was $2,591,862, and the expenditure $2,829,749; the receipts for the fiscal year 1876-77 from all sources were $2,228,000; the revenue for 1885 was officially stated at $2,524,175, and the expenditure at $2,410,905 leaving an apparent surplus of $113,270; but in reality there was for various reasons a deficit of $1,747,957. The revenue was increased by loans to $4,043,204. The revenue for 1886 was $2,376,218. At the beginning of 1875 the national debt was $20,095,000, of which the foreign debt was $12,845,000 and the home debt $7,250,000. On the 31st of December, 1885, the debt was as follows: foreign, $11,400,00 ; home, $3,879,181; interest due, $1,224,825; total, $16,504,006. On the 1st of January, 1887, the total indebtedness, including interest, was $14,348,283, of which about $9,507,192 was due abroad. The secretary of the treasury, in his report to congress on June 16, 1887, regrets that owing to internal troubles he has been unable to make any payment to foreign creditors. A number of creditors at home, however, had been paid in full.

The revenue of Brazil is chiefly derived from the following sources: imports and exports duties, and charges on ships; receipts from government railways, telegraphs, and post offices; tax on transfers of property, on industries and professions, and on house rents, and stamps. From those sources are drawn over 90 per cent of the receipts. There are many other taxes which, though yielding little revenue, increase the burdens on the taxpayers. The government levies, besides, a duty of twenty cents a bushel on salt, one per cent. on debentures, and about nine cents on every gallon of alcoholic liquors. Aside from the above are the provincial and municipal taxes. The national imposts are fixed by acts of the national assembly, and collected chiefly by custom houses and general collecting offices and their dependencies. The provincial imposts are determined by the provincial assemblies with the sanction of the respective presidents, and can be applied only to the requirements of the respective provinces. The municipal taxes at the municipio neutro, Rio de Janeiro, are fixed by the national assembly and the imperial government; in the provinces by the respective assemblies on the suggestion of the municipal corporations, and are applied only to municipal requirements. The imperial government is heavily burdened with debt

abroad, and still more so at home, as will be shown hereunder. The provinces are also in debt.

Since the fiscal year 1862-63 the increase of the imperial revenue has been about 90 per cent., which is chiefly attributable to the developement of railways, which have brought the coast in easy communication with the interior; to the introduction of improved machinery for agriculture; and to the enormous expansion in river, coast, and ocean navigation. The following table shows the revenue and expenditures for the years given:

Years	Revenue (in milreis)	Expenditure (in milreis.)
1870-71	94,897,342	100,074,292
1873-74	*133,073,352	*121,485,824
1874-75	*134,191,350	*125,843,272
1875-76	*144,472,150	*136,051,696
1879-80	*117,273,800	*116,675,690
1881-82	128,937,622	139,470,648
1882-83	128,205,988	152,958,053
1883-84	130,444,011	154,257,060
1884-85	118,764,524	156,173,843
1885-86	124,328,307	149,774,549

After 1887 the fiscal year corresponds with the calendar year. The government was authorized to levy new imposts of 10 reis per litre on salt, and 50 reis on alcoholic liquors distilled in the country, where not manufactured on plantations; also to make modifications in the tariff of duties and schedule of taxes, and stamp duties, so as to increase the treasury receipts. The revenue for the 18 months ending December 31, 1887, was estimated at 202,168,556 milreis, and the expenditures in the same period at 229,927,776. The expenditures have invariably exceeded the receipts since the fiscal year 1881-82. The budget for 1888 was estimated as follows:

Revenue	Milreis.	Expenditure	Milreis.
Imports	83,000,000	Home department	9,079,856
Port dues	420,000	Foreign office	1,940,207
Exports	18,030,000	Justice	6,474,753
Internal revenue	31,095,100	Navy	10,847,314
		War	14,654,684
Total	132,545,100	Public Works	35,291,342
Extraordinary	1,750,000	Finance	64,203,712
Emancipation fund	4,391,333		
Colonization	1,635,667	Total	141,491,908
Improvement of currency	5,000,000	Guar'ntees, inde'nities, etc	7,699,234
Grand total	145,382,100	Grand total	149,591,832

Expected deficit for the year 1888, over 4,000,000 milreis.

The internal debt, consolidated in April, 1886, amounted to 452,849,900 milreis, including the 4½ per cent. loan of 1879, which has been virtually transferred to Europe. The government owed also for deposits, 46,478,000 milreis; treasury bills, 74,795,000; paper money, 187,343,725; making the internal debt aggregate 761,466,625 or, without the paper money, 574,122,900 milreis. The foreign indebtedness was 158,465,000 milreis. Total of debt, 919,931,625 milreis, or about $468,328,140, or $38 per head of the population, estimated at 12 000,000. The amount of treasury bills issued was increased from 28,984,000 milreis in 1882 to 74,800,000 milreis in 1886; for these bills the interest paid ranges from 4 to 5½ per cent. The government paper money amounted in 1886 to 187,343,725

*About.

milreis. This paper being irredeemable is a factor of constant trouble in the finances of the country. Its value as compared with gold was about 25 per cent. in 1886. The interest to be paid on account of the public debt for 1887–88 foots up 44,799,377 milreis, or about 30 per cent. of the total expenditure of the imperial government for the period.

According to an official statement the condition of the foreign loans has been as follows:

Years of Loans	Original Amount	Balance Dec. 31, 1886
1863	£ 3,855,300	£ 822,200
1865	6,963,600	4,706,100
1871	3,459,600	2,797,800
1875	5,301,200	4,713,300
1883	4,599,600	4,485,800
1886	6,000,000	6,000,000
Total.....	£30,179,300 or $150,896,500	£23,527,200 or $117,636,000

To redeem the foreign loans a sinking fund has been established of 1 per cent. a year, to be applied to the purchase of bonds in the market when they are under par, and when at or above par, by drawing by lots. The internal debt is chiefly in bonds earning 5 per cent. interest yearly, and bearing the title of apolices. The payment of the capital and interest is in charge of the *Caixa da Amortisaçao*, which is directed by a committee independent of the government. The amount of capital raised in England for Brazilian enterprises, as officially stated in April, 1885, was $222,307,290, including amounts for railways, loans, and telegraphs. The amount has since been increased to $250,000,000. All this shows that Brazilian credit stands high in the financial centres of Europe. The state of the empire's finances is apparently unsatisfactory, the burden of debt being enormous; but it must not be forgotten that vast sums have been applied to the development of the country's wealth. Slavery has been abolished, and the owners of the slaves have been compensated. The lines of railways have brought into cultivation large tracts of land, and the efforts of the government have succeeded in bringing into the empire about 25,000 immigrants yearly. It is believed that at no distant day the revenue will be so augmented as to enable the government to adjust the expenditure to the receipts.

The chief sources of revenue in the Argentine republic are the duties on imports—those on exports having been abolished several years ago—warehousing, stamped paper and business licenses, post-offices, national telegraphs and railways, lighthouses, water works, and various minor sources. The government is heavily burdened with debt abroad as well as at home.

The following table shows the annual revenue of the country for the eighteen years 1870–1887:

Year	Amount	Year	Amount
1870	$15,827,769	1879	$21,660,863
1871	13,104,920	1880	20,247,487
1872	18,778,863	1881	22,057,500
1873	20,965,585	1882	26,665,106
1874	17,077,817	1883	30,713,348
1875	17,779,720	1884	37,296,820
1876	14,096,424	1885	36,416,132
1877	15,318,264	1886	46,762,241
1878	19,066,999	1887	48,466,960

The total expenditures from 1882 to 1887, inclusive, were as follows:

Year	Amount	Year	Amount
1882	$28,145,066	1885	$43,080,761
1883	31,224,748	1886	42,296,000
1884	34,053,484	1887	47,377,950

The expenditure of 1888 was estimated at $52,683,088, while the estimated revenue for the same year was $51,943,800. The expenditures are chiefly for the support of the army and navy, and to pay the salaries of officials; a considerable amount is also devoted to public improvements and public instruction, and to meet the requirements of the national debt.

During the fourteen years, 1863-1877, there was redeemed of the public debt $24,750,000, 30 per cent. of the total, besides paying $43,500,000 for interest. The annual sum appropriated to meet the requirements of the debt was $6,500,000, or an average of 6 per cent. on the total, and 4¾ per cent. annual amortization.

The financial system of the Argentine republic is extremely faulty. Hitherto the only resources of the government had been the customs duties. If the import and export trade was brisk the receipts increased; a commercial crisis of course reduced them; but the government being compelled to meet the exigencies incidental to new countries could never secure a surplus in a good year to cover the deficit of a bad one. Hence, whenever the revenue fell short of the amount previously estimated, the only recourse was to raise a loan, or suspend material improvements. The reaction was soon felt in commercial circles, and was followed by long protracted periods of disaster. Another great difficulty was the heavy expense in the collection of the customs duties, no less than 7 per cent. of the whole.

In 1875 the "public works loan" amounted to $24,000,000. In 1876 a loan of $10,000,000 was contracted for with the provincial bank of Buenos Aires at 4 per cent. interest, against which, as well as $12,000,000 already advanced, specie notes were to be issued by the government, which were to be legal tender throughout the republic, and accepted in full payment of taxes, except at the custom house, where half the amount of duties could be paid in notes. At this time the national government was indebted in the sum of $75,294,103, in addition to the above loan, and it was provided for in the contract that beginning with November 1, 1876, the government should pay over to the bank not less than one-twelfth of the total customs receipts, until the entire debt with interest was liquidated. For the three years ending with 1876 the financial condition of the republic was extremely discouraging. Gold was at a high premium although but little used in trade, and paper money was dear and scarce. But trying as those years were a considerable reduction was made in the public debt. At the end of 1877 the debt was as follows: London loans, $58,000,000; home debt, $21,279,549; floating debt, $1,988,253; total, $81,277,802. The following was the financial condition in July, 1881: Foreign debt, $78,935,000; internal debt, $31,950,000; paper money, $6,250,000; total, $147,135,000. This sum did not include $5,250,000, due by the city of Buenos Aires, which was assumed by the government when the city became the federal capital; nor $16,000,000 of railway guarantees, of which the government was required to meet a portion; nor does it include the internal debts of the province of Buenos Aires, and the others, for which the federal government is not responsible. In March, 1882, a new loan was negotiated for Buenos Aires in London for $20,300,000 at 6 per cent., issued at 93, partly for consolidating its existing debts. In September, 1882, a second loan was effected in London for Buenos Aires, amounting to $4,025,000. A further railway loan—for the Buenos Aires and Pacific—amounted to $7,500,000. Early in 1886 a new loan was effected for $20,215,000 at 85½, the bonds bearing interest at 5 per cent. At the close of the fiscal year 1885-6 the financial situation stood thus:

Foreign debt	$ 75,513,000
Home debt	46,664,000
Floating debt	26,601,000
Total	$148,778,000

The public debt on March 31, 1887, was, according to the official statement, as follows:

Foreign debt	$ 93,888,862
Internal "	53,908,294
Floating "	7,997,880
Total	$155,790,036

According to the last report of the department of public credit the amount of internal and foreign indebtedness of the national and provincial governments on the 31st of December, 1886, was $296,821,379. Nevertheless, the outlook for the country is full of promise. The pastoral and agricultural resources are growing so rapidly that the exports promise soon to exceed the imports, and turn the balance of trade in favor of the republic. The mineral and forest resources are as yet undeveloped, and the day is not distant when they will contribute to increase the national wealth. The country is at peace, and there is good reason to believe that the people have learned by past experience the evils of internal disturbances. If the government maintain peace at home and with its neighbors, and be less lavish with its expenditure, there is no cause for serious discouragement on account of the public debt.

The revenue of the republic of Uruguay is drawn mainly from two sources, namely, custom house duties, including harbor and port dues, and a tax upon personal property, the former being, however, the chief resource to meet all demands on the public treasury. The republic has a heavy debt, a large portion of which is owed abroad. The following data will fully explain the financial condition of the country:

For the fiscal year 1876–7 the revenue was estimated at about $9,000,000; for 1874, $8,739,131; and for 1873, $9,904,617. The expenditure for 1876 was estimated at $4,452,571, and for 1875 at $5,902,350, both exclusive of payments on account of the national debt. The budget estimates for 1879–80 were, revenue, $8,869,000; expenditure, $8,748,654; for 1880–1, revenue, $7,890,000; expenditure, $7,857,275, but the actual expenditure exceeded the revenue by $1,015,428; more than one-half the expenditure was on account of the public debt. The legislature had passed a bill authorizing the issue of treasury notes to the amount of $2,000,000, bearing interest at 4 per cent., in order to cover the deficits of 1879 and 1880. The expenditure continued in excess of the revenue for several years down to 1884, inclusive. The following table shows a more healthy condition of the finances:

Years	Revenue	Expenditure
1885	$12,373,689	$11,520,491
1886	13,385,000	13,365,107
*1887	13,044,200	13,018,500
1888	14,739,000	13,382,800

At the beginning of 1875 the national debt amounted to $43,692,264, of which $25,696,554 was home debt, $14,874,560, foreign debt, and $3,121,150, international debt. The republic owed in 1880, abroad, $3,462,520, and at home, $30,812,650, exclusive of a floating debt of $19,000,000. In later times the government added notes of the nominal value of $15,000,000 to the already existing amount. On the 1st of September, 1883, the foreign debt was $60,672,093. A scheme of unification was carried out, under which the public debt stood on January 2, 1886, as follows: Unified debt, $54,976,500; international debt, $3,812,740; due to railway companies, $3,540,955; total, $62,330,195. In November of the same year the republic was in anything but a sound financial condition, the annual interest on the public debt exceeding $5,000,000. The government was so straightened that it was compelled to borrow from private

*Estimated.

persons and banks means wherewithal to pay its current expenses. And yet, within less than six months more than a dozen companies applied for the privilege of establishing a national bank at Montevideo, with a capital of from $10,000,000 to $20,000,000, and in September, 1887, the successful competitor was already operating with a capital of $10,000,000, ten times the amount needed having been subscribed. Several other banks were also organized with capitals of $10,000,000, $7,500,000, and $5,000,000. Moreover, several foreign companies had offered to take $20,000,000 of the state debt at less interest than was then being paid on it. The total debt on January 1, 1887, amounted to $72,205,722, the unified bonds bearing interest at 5 per cent. per annum and being subject, besides, to a one-half per cent. accumulative sinking fund from January 1, 1884. The rate of exchange fixed was $4.70 per pound. In the face of a state of affairs, as above described, property of every kind, including government securities, appreciated wonderfully. Most of the capital came from England and Buenos Aires. All this in the face of the facts that Uruguay had only about 700,000 inhabitants, and an area of 76,000 square miles. The value of real estate and stock was estimated at about $296,870,115. This valuation was considered exceedingly low. For the service of the public debt in 1888 the sum of $5,359,000 was appropriated.

Much the greater portion of the revenue of Paraguay proceeds from customs duties. Other sources are comparatively trifling. The republic labors under a heavy indebtedness, resulting from the war she sustained in 1865–70 against the combined forces of Brazil, the Argentine Republic, and Uruguay. The amounts demanded from her in the way of indemnity are such as she will never be able to pay.

The revenue for 1876 was set down at $295,564; for 1877, $295,570, with an expenditure of $228,650, leaving a surplus of $66,920; for 1878 and 1879 the revenue was $216,000 and $320,000 respectively; in 1871, revenue 420,000; expenditures in 1882 estimated at $313,425. In 1884 the revenue was $839,970, of which $673,008 proceeded from the customs; the expenditure was $803,285. The revenue in 1885 was officially stated to have been 1,437,900 pesos, and the estimated expenditure 1,307,023 pesos; the revenue for 1886, 1,531,802 pesos; the expenditure 1,377,756 pesos; estimated revenue for 1886–87, 873,241 pesos, and the expenditure, 823,180 pesos. The customs were in 1887 estimated to yield 600,000 pesos. It will thus be seen that the revenue has considerably increased in late years, while the expenditure has only moderately increased. It seems that neither the yerba maté, nor the extensive valuable forests were yielding any revenue, because the government was unable to exercise the supervision necessary to check wholesale robbery.

Paraguay was free from debt till 1871. She recognized, under treaties with her conquerors, a debt of $200,000,000 in favor of Brazil, another of $35,000,000 in favor of the Argentine Republic, and $1,000,000 in favor of Uruguay. Total war indemnity, $236,000,000. Uruguay has, however, released Paraguay from her share. In 1871 and 1872 the government contracted for two loans in London, for the nominal value of £1,000,000 and £2,000,000, respectively, issued at 80, with 8 per cent. annual interest on the nominal amounts. It is stated that of the second loan only $720,000 reached the Paraguayan treasury. Payments of interest and sinking fund ceased in 1874, and none were made for many years. The fact is that the previous payments had been derived from the loans themselves. According to an official statement the debt stood in 1882 as follows:

Internal debt	$642,665
External, with interest due	17,286,805
Sundry items	31,595
Total	$17,961,065

This sum, including the foreign loans and Brazilian private indemnities; the amount of the latter with interest being $9,876,460. The outstanding amount of the London loans in 1883 was $7,527,000, with interest arrears of an equal amount in 1885. Under an arrangement made with the bondholders in London, December, 1885, the foreign debt was reduced to $4,250,000, bearing interest at 2 per cent. the first five years, 3 per cent the next five, and 4 per cent. thereafter. A sinking fund of one-half of one per cent. yearly was provided for, to become operative after the tenth year. The internal debt had been reduced to

$331,780. The reduction of the internal debt was effected through sales of public lands, and the operations of a sinking fund created by adding 10 per cent. to the import duties.

In Bolivia about one-half of the revenue is derived from a tax which the Indian population is forced to pay; the rest from import and export duties, and the proceeds of mines and other state property. The country owes a foreign and an internal debt which at last dates aggregated about $30,000,000.

No official reports were issued for several years preceding 1873. For the budget of 1873–74 the receipts from all sources were estimated at $2,929,574; for 1875, revenue, $2,929,574, and expenditure, $4,565,504; revenue for 1880–81, $3,465,790, and the expenditure in 1878–79, $4,505,504, and in 1880–81, $4,799,225. The receipts in 1880–81 included a loan of $500,000. Nothing seems to have been derived from the saltpetre beds. Receipts in 1883–84, $2,344,796; in 1884–85, $2,990,139; in 1885–86, $3,766,425; expenditure in 1885, $4,477,115. The revenue for the fiscal year 1887–88 was estimated at 3,668,790 bolivianos, and the expenditure at 4,599,225 bolivianos.

In 1887–88 the internal debt amounts to $21,500,000, including a forced loan raised in 1879 for the war against Chili. The foreign debt was contracted in England in 1872 to the amount of $8,500,000 at 68 with 6 per cent. interest. The republic actually received but a small portion of it. The loan was intended for the construction of a railway to place Bolivia in communication with the ocean, which was not done. This affair has been the source of what may be called an endless litigation in London. The two debts aggregated in June, 1879, about $30,000,000.

The sources of revenue in Perú are custom house dues; real estate taxes at the rate of 5 per cent. on the estimated annual rental of country and towns lands; license tax; a tax of five per cent. on movable property; stamp duties; tax on mines, being 15 soles semi-annually for each located mining claim; stamped paper; proceeds from post offices, sales of stamps, cards, etc.; excise on inheritances, etc; ecclesiastical taxes on clerical rites; excise duties on alcohol and Peruvian brandies that may be sent to Bolivia; bridge tolls; certificates of authentication; patent fees; tax on consumers of tobacco (not collected); personal tax, being 4 silver soles on the coast, and 2 soles in the interior. Besides the foregoing are the proceeds from state railways, telegraphs, sales of guano, etc. Prior to the war with Chili, Perú derived her revenue altogether from customs and from the sale of guano and saltpetre; but after that disastrous contest by which the guano and nitrate beds were lost, she fell back on the resources above enumerated. Even before that war the treasury had a deficit every year, the revenue not being sufficient to meet the enormous obligations the government had contracted for public works, including a railway to the summit of the Andes, besides paying interest on her heavy foreign and domestic debt.

The revenue for 1873–74 was $62,753,903, for 1875–76 it was estimated at $64,254,817; the expenditures for 1873–74 were 65,500,836; for 1875–76 it was estimated at $75,656,000. The revenue from October 23, 1883 to December 31, 1884 was $7,003,861 in silver coin, $242,958 in paper money: the expenditure was $7,059,082 in silver, and $905,907 in paper. The revenue in 1884 was 6,208,866 in silver soles, and 822,301 paper soles; the expenditure, 6,068,193 silver soles; the revenue in 1885, 7,869,751 silver soles and 4,175 paper soles; expenditure, 7,683,982 silver soles. The budget estimated in 1886 the revenue for each of the years 1887 and 1888 at 8,062,885 silver soles, and the expenditure at 6,760,866 silver soles. The items of prospective revenue were customs, 4,255,000 soles; poll tax, 1,160,000 soles; tobacco duty, 250,000 soles; stamps, 238,135 soles; and income tax on real estate, 361,531 soles.

The internal debt of Peru in October, 1880, was estimated at $35,000,000; the foreign was $245,050,909. No interest had been paid on the foreign debt since 1876, when it amounted to $162,611,919. An arrangement was made in 1882 with Chili by which a percentage of the yield of the guano deposits was to be applied to the payment of the interest to the bondholders, and a small amount was remitted to England in 1883; but as late as 1887 no definite arrangement had been arrived at. The interest arrears of Perú in 1886 were $89,439,200. The estimate of the public debt in 1884 exhibited a total of $250,000,000, besides government paper in circulation to the amount of $70,000,000.

The revenues of Chili are mainly drawn from customs duties, to which must be added taxation per capita, which in 1876 was $3.70 against $2.38 in 1863, and $1.40½ in 1833; and proceeds from sundry other sources, including monopolies, post-offices, railways, telegraphs, etc. The country has to bear the burden of a heavy debt, both internal and external, amounting together to nearly $90,000,000, or about $36 per head of the population.

The following table shows the increase of revenue for a period of 45 years between 1831 and 1875:

Year	Amount	Year	Amount
1831	$1,517,538	1854	$ 5,946,217
1832	1,652,714	1855	6,287,526
1833	1,770,761	1856	6,509,867
1834	1,922,966	1857	6,419,143
1835	2,003,421	1858	5,961,774
1836	2,075,053	1859	6,284,165
1837	2,532,462	1860	7,494,751
1838	2,275,427	1861	5,850,821
1839	2,386,952	1862	6,287,155
1840	2,946,247	1863	6,700,659
1841	2,767,188	1864	6,574,918
1842	3,074,576	1865	7,301,043
1843	3,001,230	1866	6,197,111
1844	3,307,169	1867	9,756,838
1845	3,223,039	1868	10,694,974
1846	3,623,918	1869	11,484,806
1847	3,714,079	1870	11,537,781
1848	2,860,696	1871	11,681,032
1849	4,135,286	1872	13,590,410
1850	4,334,344	1873	15,256,532
1851	4,426,907	1874	16,609,183
1852	5,480,480	1875	16,440,000
1853	5,552,485		

Or including the last installment of the loan of 1873, $19,440,000, of which $8,000,000 was from customs.

The revenue for 1876 was $23,492,450 (including a balance of $947,775, balance from 1875, and $7,184,523 of receipts from extraordinary sources). The ordinary receipts between 1877 and 1882 were as follows:

Year	Amount	Year	Amount
1878	$16,805,530	1880	$16,430,000
1878	20,443,977	1881	16,920,000
1879	15,896,568	1882	24,810,000

President Pinto's message to the Chilian congress on June 1, 1881, furnishes the most reliable information touching the finances. The revenue, ordinary and extraordinary, for 1880 was set down at $43,992,584, and the expenditure as

approximating $43,123,829, though the latter could not be definitely ascertained, "inasmuch," to use his own words, "as out of the extraordinary number of accounts arising from the war (against Perú and Bolivia), it is but natural that many should still remain unsettled, the amount of which is not precisely known, as for instance, the outlays made by the legation in France, for military and naval supplies." The ordinary revenue for the year referred to stood at $27,992,584, while the total revenue for 1879, ordinary and extraordinary, was but $27,693,087. In the revenue for 1880 was included $2,500,000 derived from the redemption of annuities, and £4,000,000 from the sales of nitrate up to October 2, 1880; after that date this latter source of income was replaced by an export duty, which while equal in amount was easier to collect. The president had reference to the nitrate beds of Tarapacá, which at that time were explored on account of the Chilian government. The working of the guano deposits—also taken from Perú—had been retarded by scarcity of laborers, and transactions in that commodity had been limited. After stating that the custom house yield for 1880 had exceeded that for 1879, the president remarked as noteworthy that the increase was due "to new markets and to increased production, and consequent development of consumption." The president added that custom houses had been opened in the territories occupied by the Chilian troops with a view to make the war self-supporting as far as the unhinged condition of affairs in those regions would permit with the reduction of the national expenditure to the requirements of a normal situation, taking into account the gradual increase of the revenue, and the resources drawn from the conquered country, together with those to be derived from the ultimate permanent occupation of the Araucanian territory.

The revenue for 1882 was estimated at $15,000,000; and for 1883 at $17,500,000, 40 per cent. of it being derived from customs duties. The ordinary and casual income in 1884 amounted to 39,910,133, of which sum $23,139,601 proceeded from the customs, or $924,192 more than in 1883. According to the report of June 1, 1886, there was a balance in the treasury, January 1, 1885, of $6,902,164, and the revenue in 1885 was $35,580,000, with an extraordinary revenue of $22,000,000. In 1886 the ordinary receipts were $37,116,070, with extraordinary revenue of $13,996,187, and balance for 1885 of $14,652,332, making a total for the year of $65,764,589. In 1887 the receipts were $35,064,350. The revenue for 1888 was estimated at $39,000,000. The following were the expenditures of the Chilian treasury from 1875 inclusive: 1875, estimated, $17,185,076; 1876, $20,685,139; 1877, $16,892,810; 1878, $21,375,728; 1879, $15,247,210; 1880, $15,375,305; 1881, $17,057,720; 1882, $25,572,855; 1883, $40,037,073, 1884, $44,874,666; 1885, $44,284,704; 1886, $45,059,235; for 1887 it was estimated at $34,097,824; and for 1888 an expenditure, ordinary and extraordinary, $39,615,770.

As per official statement of January 1, 1877, the foreign debt of Chili amounted to $38,809,000, which comprised seven loans with interest ranging from 3 to 7 per cent.; and the home debt $10,780,875, with interest varying from 3 to 8 per cent. Included in the total, $49,589,875 was the railway debt amounting to $35,000,000. On January 1, 1885, the foreign debt was $33,843,000; the annual interest thereon, 3,405,419; the home debt, $53,500,000. Part of this debt bears interest from 3 to 7 per cent.; while there is a sinking fund of between ½ of 1 per cent. and 4 per cent. The total indebedness was $60,430,329 on the 1st of January, 1885; since then the loan of 1878, $3,350,000, was paid off. The government cancelled annually $1,500,000 of paper money, and had it in contemplation to do so until the quantity in circulation should be reduced to $16,000,000; as much silver was kept in reserve to meet the public resumption of specie payment in silver. The public debt in the early months of 1887 was as follows: exterior, $34,601,270; interior, $49,223,429; total, $83,824,699. The foreign debt is payable in gold, both principal and interest, and was consolidated during 1886 by Rothschild and Sons, at 4½ per cent., with one-half of one per cent. for a sinking fund. Chili saves by the operation about $472,000 a year. The internal debt is represented in paper currency, of which $6,786,825 form the amount of bonds redeemable, $16,848,688 the redemption of censos, which debt is unredeemable, and $26,087,916 government paper currency. Of the paper currency authorized by law only the sum of $16,000,000 was in circulation, and an act was passed for its gradual reduction. The depreciation of paper was such that from $1.90 to $2 was equivalent to only one dollar of gold. The foreign debt was increased by another loan, for £1,113,781, or about $5,568,905 contracted in October, 1887. The payments on account of the sinking fund of the external debt which had been suspended on the 1st of May, 1879, at the breaking out of the war with Perú, were resumed in July, 1885. Chili also arranged with the German and Italian holders of nitrate bonds issued by Perú, on the basis of paying off these bonds of £185 at £105, the bondholders being well satisfied with the arrangement.

The main resources for revenue of the Dominican republic is drawn from customs duties. The government is burdened with a considerable debt in Europe, and with a less heavy one at home.

The total revenue in 1872 was $772,685; that of 1882 was estimated at $1,500,000, with about the same amount for expenditure; the receipts for 1883 were computed at $1,750,000, about 40 per cent. proceeding from duties on imports; for 1884 the revenue amounted to $3,582,720, one half of which was in loans or advances; the expenditures in the year footed up $3,582,720; for 1885 the revenue was estimated at $1,409,566, while the expenditure was computed at only $787,164; for 1886–87 the former was officially stated at $1,549,577, including a balance of $108,608 from the preceding year. In 1870 the republic owed $1,565,831 at home; besides a foreign debt of £757,700 contracted in London in 1869, which at the close of 1872 had been reduced by a sinking fund to £722,700. It is understood that the government received only from £38,000 to £50,000 of the loan, and repudiated the rest in 1872. In 1885 there was some prospect of an arrangement in London, by which the bondholders should accept 50 per cent. in new bonds, £261,561, to be issued in the place of double the amount of the old bonds; the new bonds bearing interest at 4 per cent. the first year, 5 per cent. the next year, and 6 per cent. till the bonds became due; the new bonds to be received at par in payment of government lands and mines. On May 1, 1885, the home debt amounted to $1,855,081. In January, 1886, the government recognized an internal indebtedness of $1,359,702, and an international one of $195,252. According to a statement of the council of foreign bondholders the Dominican debt amounted in 1887 to £714,300, with unpaid interest aggregating £621,441. Negotiations for the cancelling of this debt by the issue of new bonds were commenced toward the end of 1886, but nothing definite had been concluded at the end of 1887.

The republic of Hayti derives its revenue from customs duties, port dues, excise, and other sources of minor importance. The government recognizes a very large debt, both at home and in Europe.

In 1870 the revenue was estimated at 40,000,000 gourdes, equivalent to $2,500,000, and the expenditures at double the amount. Long continued civil wars have wrought such confusion and disorder that the financial condition of the country can be arrived at only by estimates. The revenue is supposed to have been in recent years about $4,500,000 annually, and the expenditures are computed at $7,000,000; that for 1881–82 was estimated at $4,478,546. The revenue for 1885–86, besides about $2,400,000 for amortization and foreign indemnities, was estimated at 4,024,466 piastres. The budget estimates for 1886–87 showed an expenditure of 4,143,523 piastres, with an especial income of 5,231,285 piastres, being 1,108,761 piastres for interest, etc.

There is a large floating debt resulting from the accumulation of paper money, emitted by several governments, especially from 1853 to 1855, the annual emission having been $4,500,000. This currency, amounting in 1872 to $300,000,000, has greatly depreciated, fluctuating from 165 to 350 or more per cent. During the civil war it was almost valueless. In 1873 the government devised a plan to redeem the paper money, but it proved to be abortive, the rate of exchange having been fixed at 300 per cent., while the commercial value was $2.50 in paper for one in silver. Another plan, raising the duties, already too high, on imports and exports, had an injurious effect. It is very doubtful whether the government ever receives more than one-half the duties. The country owes large sums to France and England. The foreign debt consists of a loan of 11,949,840 francs, contracted at Paris in 1825, and of other liabilities incurred in France, the total amounting to 32,049,840 francs. No interest has been paid on this debt for many years. However, the government, in 1875, issued with some success a new foreign loan of 83,453,000 francs, with the avowed purpose of extinguishing the old debt, both foreign and domestic, and of applying the remainder to the construction of two railways. Since 1881 the bank of Hayti has been in operation with a capital of about $4,000,000. This bank was authorized to issue bank notes, but not to exceed three times the cash in its possession. But in 1884 and 1885 the government decreed the issue of 8,000,000 piastres in paper money. In 1885 the following was reported to be the financial situation:

Remainder of the French debt of 1825	$ 307,884
Dominique loan	7,200,000
Internal debt	5,000,000
Total	$12,507,884

An official statement of 1887 makes the foreign debt $4,[illegible],000, and the internal $9,180,000; total, $13,500,000.

The revenues of Cuba proceed from duties on imports and exports, port dues, under the name of rentas marítimas, and internal taxes, both direct and indirect, known under the general title of rentas terrestres. Besides these are the municipal taxes which are applied to municipal requirements. Prior to the revolutionary outbreak of 1868 the revenue had reached yearly $26,000,000. Since that year the imposts have been greatly increased.

In the budget for 1887-88 the revenue was estimated at $23,272,100, and the expenditure at $22,880,480. The following was the financial condition of Cuba in May, 1886:

Paper money issued during the revolutionary war	$ 26,868,566
Issue of 1880 on mortgage	62,250,000
Custom house bonds of 1878	5,537,500
Three per cent. bonds, with 1 per cent. sinking fund	20,215,278
Annuities	11,750,408
Floating debt	30,860,000
Total	$157,201,752

In May a 6 per cent. Cuban loan for 170,000,000 pesetas or francs at 87, less 3 per cent. commission, was placed on the market in Europe, the Spanish government guaranteeing the bonds (340,000 or 500 pesetas each), to run 85 years. The loan was all taken up.

Porto Rico has a revenue proceeding from customs duties, excise, stamped paper, and receipts from post-offices, telegraphs, and other sources.

The revenue in 1878 from all sources was $3,704,480, of which nearly $2,500,000 was from customs. The expenditure reached $3,802,175, of which $1,498,470 was for the support of the army, $97,830 for the navy, and $956,505 for civil purposes.

The government of the United States derives its revenues from the following sources, namely: Duties on imports; taxes on distilled spirits, fermented liquors, and tobacco; taxes on national banks; sales of public lands; profits on coinage; customs and consular fees; Pacific railways, interest and sinking fund; surveying public lands; sales of government property; immigrant fund; revenues of the district of Columbia, which is the federal district containing the national capital; and miscellaneous sources. The expenditure consists of the expenses of government, foreign intercourse, intercourse with and support of Indian tribes, pensions of disabled soldiers, widows and orphans, military and naval establishments, and miscellaneous items, including public buildings, lighthouses, observatories, etc., expenses of the federal district, interest on the public debt, and sinking fund. The nation has a heavy debt, but her resources are more than sufficient to meet every payment as it becomes due, and even to take up from time to time large portions of the debt, before they have attained maturity. All the bonds of the general government command a high premium. The several states, counties, townships, cities, etc., also have their local debts, which probably aggregate about $1,100,000,000. The national debt is estimated to be about $25 per head of the population. There is no direct taxation for

national purposes, but real and personal property are taxed in the states. The estimated valuation of property in the census of 1880 was $43,642,000,000, but the superintendent of the census did not place full reliance on those figures. The amount of taxable property, real and personal, as assessed in 1886, was $21,387,437,837; most of the returns from which these figures were obtained are for 1886, but others are for 1884–85.

The following tables show the receipts and expenditure of the United States government for the last ten years:

Years ending June 30.	Revenue	Expenditure
1878	$257,763,878	$236,964,827
1879	273,827,184	266,947,883
1880	333,526,610	267,642,958
1881	360,782,292	260,712,887
1882	403,525,250	257,981,440
1883	398,287,681	265,408,138
1884	348,519,959	244,126,244
1885	323,690,706	260,226,935
1886	336,439,727	242,483,138
1887	371,403,277	267,932,180

These figures do not include loans, other than interest, nor premiums in connection with the public debt.

The following figures show the yield of the chief sources of revenue, and the items of expenditure, all for 1887: Customs duties, $217,286,893; internal revenue, $118,823,391; sales of public lands, $9,254,286; profits on coinage, $8,929,252; consular fees, $3,301,647; and national bank taxes, $2,385,851. The items of expenditure were: Civil list, $22,072,436; foreign intercourse, $7,104,490, which includes $5,739,265, paid to claimants out of the Alabama claims award; Indians, $6,194,523; pensions, $75,029,102; army, $38,561,026; navy, $15,141,127; miscellaneous, $52,002,648; federal district, $4,085,251; interest on debt, $47,741,577; and sinking fund, $47,903,248.

The total net ordinary receipts of the government from March 4, 1789, to June 30, 1887 (exclusive of loans), has been $10,300,347,549. The total expenditure in the same period (including interest on public indebtedness), $11,579,-085,426.

The public debt in 1835 was $37,733; and in 1848, and the end of the war with Mexico, $47,044,862. In 1860 it was $64,842,288; then came the sectional war between the northern and southern states; the debt in 1866 reached $2,773,236,-174, these figures expressing the maximum; from that time it has been steadily decreasing, until in 1886 it was only $1,805,170,460. During the year ending June 30, 1887, the sum available for reducing the public debt was $127,926,815, which included sinking fund and redemption. The following table shows the amount of the national debt on the 1st of July for several years, from 1860:

Years	Capital of Debt	Years	Capital of debt
1860	$ 64,842,288	1882	$1,918,312,994
1866	2,773,236,174	1883	1,884,171,728
1877	2,205,301,392	1884	1,830,528,923
1880	2,120,415,370	1886	1,769,529,741
1881	2,069,013,569	'87 Dec. 1	1,675,816,660

United States Debt Statement, Jan. 1, 1888.

INTEREST-BEARING DEBT.

Character of issue	Authorizing act	When Payable	Interest periods	Amount outstanding		
				Regist'r'd dollars	Coupon dollars	Total dollars
4½s of 1891	1870 and 1871	Sept. 1, 1891	Q.—M	191,956,050	38,588,550	230,544,600
4s of 1907	1870 and 1871	July 1, 1907	Q.—J.	620,131,650	112,810,450	732,442,100
4s, ref. ctfs.	Feb. 26, 1879					151,530
3s, navy p. fd	July 23, 1868					14,000,000
Bonds issued to Pacific railroads				64,623,512		64,623,512
Aggregate of interest-bearing debt				876,711,212	150,899,000	$1,041,761,742

On the foregoing issues there is a total of $1,662,617 interest overdue and not yet called for. The total current accrued interest to date is $10,339,184.

DEBT ON WHICH INTEREST HAS CEASED SINCE MATURITY.

There is a total of overdue debt outstanding, never presented for payment, of $3,163,955 principal and $178,392 interest.

DEBT BEARING NO INTEREST.

Character of issue	Authorizing act	Amount
Old demand notes	July 17, 1861: Feb. 12, 1862	$ 57,105
Legal-tender notes	Feb. 25, 1862; July 11, 1862; March 3, 1863	346,682,016
Certificates of deposit	June 8, 1872	6,985,000
Gold certificates	March 3, 1863; July 12, 1882	96,734,057
Silver certificates	February 28, 1878	176,855,423
Fractional currency	July 17, 1862; March 3, 1863; June 30, 1864	15,818,148
Less amount estimated lost or destroyed, act June 21, 1879		8,375,934
Aggregate of debt bearing no interest		$634,254,815
Total debt, interest-bearing and without interest		$1,679,180,512
Total debt principal and interest, to date		Int $ 12,180,193
Total cash in treasury		1,691,360,705
		527,625,557
Debt, less cash in treasury, January 1, 1888		$1,225,598,402
Debt, less cash in treasury, December 1, 1887		1,240,183,052
Decrease of debt during the month of December, 1887		$14,584,650
CASH IN THE TREASURY—Available for reduction of debt:		
Gold held for gold certificates outstanding		$ 96,734,057
Silver held for silver certificates outstanding		176,855,423
U. S. notes held for deposit certificates outstanding		6,985,000
Cash held for matured debt and interest unpaid		15,344,148
Fractional currency		796
Total available for reduction of debt		$295,919,424
Reserve fund held for redemption of U. S. notes		100,000,000
Unavailable for reduction of debt:		
Fractional silver coin	$24,827,528	
Minor coin	55,761	
Certificates held as cash:		24,883,289
Legal tender	120,000	
Gold	31,010,394	
Silver	6,339,570	
		37,479,964
Net cash balance on hand, January 1, 1888		69,342,879
Total cash in treasury		$527,625,557

BONDS ISSUED TO THE PACIFIC RAILWAY COMPANIES.

June 30, 1887	Amount outstanding	Interest paid by the U. S.	Interest repaid by transportation	Amount paid into sinking fund by companies	Balance of interest paid by the U. S.
Total.....	$64,623,512	$74,781,736	$21,126,024	$9,171,086	$52,502,09

The Pacific Railroad bonds are issued under acts of July 1, 1862, and July 22 1864; they are registered bonds, bear 6 per cent. interest in currency, payable, January and July 1, and mature 30 years from their date.

The government of the Bermudas obtains its revenue mainly from customs, with the aid of $10,000 to $12,000 a year contributed by the mother country. The islands recognize a small public debt.

The accompanying statement explains the financial situation to 1887, inclusive:

Years	Revenue	Expenditure
1872	*$ 166,280	$ 161,680
1875-86	1,695,705	1,707,520

For 1887-88 the estimated revenue was $147,495, and the estimated expenditure, $137,720. The public debt in 1887 was about $45,070.

The Bahama group also draws its revenue from customs, aside from other minor sources. This government is in debt.

The subjoined figures give the receipts and expenditures, and the amount of the public debt:

Year	Revenue	Expenditure
1870	$ 237,650	$ 242,990
1872	187,870	195,000
1878	220,265	213,685
1875-85	2,349,710	2,391,360

The public debt of about $218,980, paid off in the flush times of blockade running, swelled again in later years to $270,810. It seems to have been reduced to $240,630 in 1884, but in 1887 it had risen to $415,630.

The colony of British Honduras derives about one half of its revenue from customs, and the rest from excise, licenses, land tax, etc. The government was free from debt in 1884; but there were considerable deficits in the two following years.

The total revenue collected from 1875 to 1886, inclusive, was	$2,759,544
And the expenditures in the same period were.....	2,843,564
Leaving a deficit of.....	84,020

More than one half of Jamaica's revenue is derived from duties on imports; the other sources are: tax on rum, proceeds of the

*Including loan of $7,500.

railway owned by the government, licenses, post offices, etc. The island is heavily burdened with debt.

The revenue and expenditure has been as follows:

Years	Revenue	Expenditure
1871	$2,175,000	$2,110,000
1878	2,562,825	
1880*	*2,712,275	*2,791,175
1882	2,929,910	2,791,160
1883	2,972,370	2,740,860
1884	2,898,600	2,812,925
1885	3,061,990	2,887,095
1886	2,891,615	2,966,490

In 1887 the public debt of Jamaica was about $7,203,950. Of this amount $3,512,000 went for the purchase of the railway, and 682,500 on account of the Rio Cobre canal. The cost of the colony to the mother country was in 1867–68 $724,750; the expense has decreased from year to year. The expense of the military station in 1872–73 was $339,355, the number of troops being 2,000, exclusive of the local militia. Since the disestablishment of the church that item of expense ceased.

The dependencies, Turk's and Caicos, had in 1885 a revenue of $36,810, and an expenditure of $35,880. The Caimans' revenue is very small, hardly more than enough to pay the clerk and constable, maintain some roads, and allow something for education, and a few miscellaneous expenses.

The chief sources of revenue of the Leeward islands confederacy are customs and excise. The government recognizes a public debt.

The revenue and expenditure appear in the subjoined table for 1886.

Island	Revenue	Expenditure
Antigua	$237,260	$205,275
Montserratt	25,115	28,345
St. Kitts Nevis, Anguilla	177,850	195,565
Dominica	76,190	78,295
Virgins	7,240	8,380

The public debt of the Leeward confederacy in 1887 amounted to $168,875. Besides that sum, Montserrat owed $21,500; and St. Kitts and Nevis, $53,500.

The revenue of Barbados is derived chiefly from import duties, tonnage and port dues, licenses, and duties on rum. The island was free from debt in 1873, but one was incurred in 1884, and nearly doubled in 1887.

The revenue collected in 1873 was	$ 618,385
And the expenditure	608,980
The revenue from 1875 to 1886 was	8,132,470
And the expenditure in the same period	8,109,115
The public debt of Barbados in 1887 was	150,500

The Windward islands confederacy has the same sources of revenue as the other British West Indian colonies. It also recognizes a considerable public debt.

* Estimated.

The revenue and expenditure of the islands composing it were, in 1886, as follows:

Island	Revenue	Expenditure
St. Lucia	$199,115	$220,570
St. Vincent	152,885	156,580
Grenada	261,960	270,760
Tobago	44,070	47,645

The total public debt of the government in 1887 was $235,760. St. Vincent, Grenada, and Tobago had also debts of their own.

The island of Trinidad has a considerable revenue from customs, besides that from licenses, stamps, etc., and receipts from the railway; but she has also a heavy debt.

The following table shows the revenue and expenditure from 1882 to 1886.

Year	Revenue	Expenditure
1882	$2,186,915	$2,295,965
1883	2,291,770	2,322,159
1884	2,380,290	2,356,945
1885	2,146,535	2,219,605
1886	2,267,085	2,217,515

The public debt in 1887 was $2,859,400.

Half the revenue of British Guiana proceeds from import duties; the other half chiefly from taxes on wines and spirits, and retail spirit licenses. The colony also acknowledges a public debt.

The revenue collected from 1875 to 1886 aggregated $24,886,045, and the expenditure in the same period was $24,902,390. The estimated receipts for 1887 were $2,312,500, and the estimated expenses for the same year, $2,277,045. The public debt in 1887 amounted to $2,233,500.

Before closing the subject of revenue, expenditure, and public debt, I deem it not out of place to append the views of some of the most distinguished political economists on the subject of public indebtedness.

According to Malthus, a national debt is open to three great objections: first, the interference with production caused by a heavy weight of taxation; second, the damage to property arising from a general idea as to the burdensome character of the debt; and, third, the intensification of the evils which would result from any changes in the currency. He saw great dangers in any attempt suddenly to remove the public debt, and thought it advisable to reduce it gradually. To cancel it with a stroke of the pen would be downright robbery; to pay it off suddenly would throw a large mass of capital on the market, and derange every branch of business; profits would fail, and productive employment of capital would be checked, until by migration or destruction no more remained in the country than its industrial circumstances

demanded. Malthus recognized that the fund-holders are a body of unproductive consumers; but that by their presence they afforded a stimulus to industry, which would be lost if they ceased to be national creditors. This stimulus could only be imparted by public creditors residing in the country indebted to them. The disadvantage resulting from a foreign debt, unless incurred in developing legitimate material improvements, is too apparent to need any comment.

J. S. Mills treats the subject in two parts in his excellent work on political economy. In one (Book I, c. 5,) he discusses whether extraordinary expenditures should be covered by loans, or by extra taxation, concluding that loans are not more obnoxious than taxation; because loans are obtained, not from the productive capital of the country, but from capital attracted from abroad, or from capital which would not have been saved but for the advantage offered by the loan. But where both loans and taxes would fall upon the productive capital of the country, the latter form of raising the required sum is more judicious; as the taxes, being once paid, no further payments are necessary; while in the case of loans, provision must be made every year for the interest thereon. When government loans affect productive capital, a rise in the rate of interest follows.

The second part alluded to (Book V, c. 7,) deals with the general aspect of the question. Expenses of a temporary character should be met from existing resources; but if the expenditure is incurred with a view for future benefit, it is perfectly just to impose a share of the burdens or cost upon those who are to be benefited. It has been said, in opposition to the payment of a national debt, that the payment of interest is no loss, but a transfer; but this leaves the question undecided. If the creditors are foreigners, there is loss; if the creditors are natives and residents, the transfer, being compulsory, is not an advantage; it disturbs trade, draws capital from productive industries; to which should be added that the portion taken from the taxpayer for the collection of expenses is a sure loss.

Mills argues upon the two principal plans proposed to pay off a national debt: first, a general contribution levied upon all members of the community, in proportion to their wealth; second, an increase of taxation, devoting the surplus to the payment of the debt. The first he pronounces practically inapplicable, and unjust in its operations. The second scheme he accepts, subject to some modifications. By experimental reductions, taxation should be so arranged as to obtain the largest net yield at the least cost; and all the surplus, accruing through the growth of the country in wealth, should be applied to the diminution of the debt, getting rid first of such parts of it as were obtained on the most onerous terms.

Some economists argue that a public debt affords a safe investment for the small savings of the less wealthy classes. Mills justly says that such a need yearly diminishes. Indeed it has been in a great measure met in Great Britain by certain provisions made by the government through the post offices.

Ricardo enters fully into the discussion of the subject of national debts in his *Principles of Political Economy and Taxation*, published in 1817, and in his *Essay on the Funding System*, contributed to the supplement of the *Encyclopædia Britannica*, 6th edition. In the first-named work the author maintains that the burden of a debt lies in the original loan rather than in the annual interest paid, because the former is so much drawn from the productive capital of a nation. He objects to the loan system for the following reasons, besides other minor ones: first, it tends to render nations unthrifty; second, when a nation must pay annually a heavy sum for interest on her debt, taxation will become such a burden that capitalists will hasten to remove their funds from the country. Thus might the nation be brought to the verge of bankruptcy. He is of opinion that nations should pay their expenses, both ordinary and extraordinary, at the time they are incurred, instead of providing for them by loans. On the subject of procuring funds to meet extraordinary expenditures rendered necessary by war, he suggests three schemes: first, taxation to the required amount levied each year; second, the amount required to be borrowed each year and funded, thus creating a perpetual charge on the revenues; or, third, the amount might be borrowed, and at the same time provision be made, by a tax on property, to create a fund for the extinguishment of the debt in a limited number of years. The first plan is objectionable, because of the excessive taxation it would entail; the second he condemns because it entails a perpetual burden; the third he prefers, being less burdensome each year than the first plan, and less durable than the second.

The distinguished French writer, Say, differs with Ricardo on this point, for reasons that will appear further on. In a chapter entitled *De la Dette Publique* (Traité d' Economies Politique, Livre III., c. 10,) he expresses himself to the following effect. If government loans were drawn from small savings which would not be otherwise productively invested, and were applied to production, then something could be said in their defense. They would also be an advantage when they allowed a necessary and profitable expenditure, large in amount, to be spread over a term of years. Care should be taken, however, not to cast on property burdens which the present generation should legitimately bear. Loans divert capital from production to unprofitable consumption. A large national debt is obnoxious because it offers an inducement to gambling, speculations, and also because it places the numerous body of fund-holders under government control. Say considers sinking funds provided for the reduction of national debts as altogether unreliable, because they have been usually diverted from their intended purposes, and have fostered the increase rather than the diminution of indebtedness. A state, like an individual, must practise a rational economy, consistent with the performance of its proper duties, and devote all excess of income over expenditure, to clear itself from debt.

Adam Smith, in his *Wealth of Nations* (Book V. c. 3). *Of Public Debts*, after expatiating on the origin of loans from the time when the feudal system ceased in Europe, reprobates the plan, so com-

monly resorted to in former times, of giving a fictitious value to coin; for while the nominal amount repaid apparently equalled the amount borrowed, the real repayment was less than the amount of the loan, in proportion to the depreciation of the currency. Smith objects to the whole system of creating debt; because this is sure to be followed by evil results, viz.: diminution of productive capital, embarrassments to industry, and the gradual enfeebling of every state that has adopted it. He adds that if England seems to bear with ease the load of her immense debt, it must not be supposed that the burden may be increased without causing disturbances and distress. Macaulay, on the contrary, looked upon the system of funding as salutary, in giving "intelligence an advantage over brute force, and honesty an advantage over dishonesty;" for "the power of a society to pay debts is proportioned to the progress which that society has made in industry, in commerce, and in all the arts and sciences which flourish under the benignant influence of freedom and of equal law. The inclination of a society to pay debts is proportioned to the degree in which that society respects the obligations of plighted faith."

The following quotations are from Tennant's Blue Book, or Taxation as it is, and as it ought to be: "If the sum received in dividends on the national debt were paid in taxes, and if these two sums precisely coincided in amount, and if there were no expenses of collection, and *if the taxes did not interfere with the production of wealth*, the national debt would not diminish the national wealth, though it could not augment it.

"It would be a mere matter of distribution, but the expense of collecting the national revenue, and the interference of taxation with production are so much pure loss, and by the removal of these two sources of expense and loss we should be richer if we were relieved of the national debt. "To relieve ourselves of the national debt may not be conveniently within our power; to relieve ourselves, however, of the worse consequences of it is easily within our power.

"But, still the fact remains that the national debt—now in round numbers about £800,000,000—is a mortgage laid upon taxes; and this is a great evil, also a great breach of the much boasted, but much violated English constitution; for it is the great privilege of each House of Commons in turn to exact taxes at pleasure, and no existing House has any right to engage that taxes shall not be voted by its successor.

"Our national debt is, therefore, a national evil, and has been fixed on us and posterity by unconstitutional means; but this evil, great as it is, is often exaggerated in its evil effects, and made to appear to be a greater evil than it really is."

The Mexican republic maintains a considerable military force of all arms. On a peace footing it is about 20,000 men, but in time of war she can bring into the field some 165,000 men, namely, 3,700 officers, 132,000 infantry, and upwards of 25,000 cavalry, the rest being artillery and engineers. The republic supports an efficient military school, and possesses a small navy.

In 1886 the armed force consisted of 10,580 infantry, 4,176 cavalry, and 1,017 artillery; besides gendarmes, 230 invalids, and 1,158 men in the military colonies, aggregating nearly 19,000 men, inclusive of their 1,741 officers. The soldiers are armed with Remington rifles; the sabres used are mostly made in the United States. A large number of the officers who were serving before 1876 are now on the retired list with pay and rank but no power, the present government deeming this policy advisable. Each of the states of the federation has a militia of its own, which to a great extent takes the place of a police force. The military school furnished in the last scholastic year eight graduates to the engineer corps, and the especial staff, and twenty-five to the artillery and other arms. A battalion was organized, called coast and garrison artillery, for the purpose of improving the tactics of fixed artillery companies assigned to some places on the coast. A museum of artillery was being formed in the national arsenal. The arsenal now suffices for the manufacture of most of the arms and munitions now in use, and for the construction of the new armament of all kinds needed by the army, even when placed upon a war footing. The factory has constructed a gun in imitation of the Remington rifle, having a calibre of nine millimetres, and cartridge and ball coated with steel, with satisfactory results as to weight and power.

The Mexican navy had in 1887 two vessels, each of 450 tons and 600 horse-power, and armed with 20-pounders; besides three small gun-boats.

The five republics of Central America support a military force for the maintenance of peace at home, and to serve as a nucleus for a larger force in case of foreign invasion. In Guatemala the late President Barrios labored assiduously to provide the country with a well disciplined militia. He also established a military school which should furnish competent military officers. The army is estimated at 16,000 men, who can be largely increased; all male citizens, except Indians, priests, students, and those who pay a certain amount per year for exemption, being required to render military service. Salvador has also endeavored to provide an efficient army. In 1879 it ordered a complete reorganization of the service, the force being fixed at 20,000 men in four divisions, with the president as commander-in-chief. The republic maintains a school at which all the branches of a military education are taught. In Honduras there is a militia force of about 32,000 men. In case of war all male citizens from 18 to 50 years of age must render military service. The Honduran troops make a poor display on parade, but will march from 50 to 60 miles a day with no other food than a plantain and a little cheese, and if well officered will fight desperately. Nicaragua's army was organized in 1832 in three divisions, each of 3,200 men. This could easily be increased, but was deemed sufficient for all purposes. In Costa Rica the force available for active service is about 15,000 men, to which must be added a reserve of nearly 6,000, the national guard of 3,500, and the field and company officers, numbering about 2,485. Costa Rica is the only Central American republic that has ever attempted to maintain armed vessels.

The force in active service in Guatemala was nominally 2,180 men, rank and file, in 1887; there was besides a militia of 28,000 men. Salvador had in that year a standing army of 2,000 men, and 12,000 militia on a peace footing. Nicaragua kept under arms in the same year about 700 men, including some 400 police; besides 9,600 militia. The force of Costa Rica in active service in 1886 was a little more than 600 men. The republic had a few years ago one schooner, and two small steamers used for the protection of the revenue.

Colombia's military force on a peace footing is 3,000 men, which may be increased in the event of foreign invasion or public disturbance by a contingent of 1 per cent. of the population.

The government at the present time keeps a force of 700 to 800 men on the isthmus of Panamá for the double purpose of protecting the transit, and controlling the political situation. In an emergency from 3,000 to 4,000 might be kept there under arms, but only for a short period. The navy consists of the plated steamer Boyacá, the steam yacht Rafael Nuñez, and a coasting steamer.

Venezuela has a small force under arms, and an organized militia. The republic also possesses a few armed vessels.

The militia has been brought into the field in times of civil war to the number of 60,000. The force under arms in 1887 consisted of 2,545 officers and men. The number of citizens capable of bearing arms in 1884 and liable to service under the military law, was 350,000. The navy consisted of two small steamers and two schooners.

Ecuador had in 1884, a time of peace, 1,600 men under arms, but in 1886, the country being disturbed, the effective force was 6,000. In 1876 the government owned three small armed vessels.

The standing army of Brazil in 1887 consisted of 15,000 men, including about 1,520 officers of all ranks. The strength may be increased in event of war to 32,000. There is also a force of gendarmes, consisting of 6,850 men. The national guard, formerly existing, which numbered nearly 1,000,000 men, was temporarily disbanded, the officers only being retained. The object of this measure was to await the completion of the census, and then reorganize the guard. Brazil possesses a powerful navy.

Under a law of February 27, 1875, military service is obligatory for all Brazilian male citizens; but numerous exemptions are admitted, and substitutes are allowed. The period of service in the regular army is six years, and in the reserve three years. The infantry is mostly recruited in the northern provinces, and the cavalry in the southern part of the country. There are military arsenals in several provinces. There are also military colonies on the outskirts of the empire for the protection of the frontier and other purposes.

The Brazilian navy in 1887 consisted of nine iron-clads, one unarmed cruiser of 4,500 tons (in construction), six small cruisers, eighteen gunboats (four of them in construction), and several torpedo boats. Two powerful sea-going turret-ships were constructed in England. There are likewise turreted vessels for coast defence, or river service, the total number being some sixty ships of all classes, with about 200 guns, and probably 1,200 horse-power. The navy is manned by 5,750 officers and men, including marines. The service is organized upon the French plan. There are five arsenals situated at Rio de Janeiro, Pará, Pernambuco, Bahia, and Ladario de Matto Grosso, and a pyrotechnical laboratory connected with this branch of the service. The officers of the navy are suitably educated, and the more proficient are permitted to serve in foreign ships in order that they may acquire a more thorough training. The crews are mainly civilized Indians, who have an especial aptitude for sea-faring life.

The Argentine republic is a military power in South America. Although in time of peace she keeps in active service only a small force, she can bring into the field on an emergency upwards of 400,000 men. She also possesses a number of serviceable men-of-war, manned with well trained officers and sailors.

The army of the republic in 1887 was composed of 11 generals, 238 field officers, 883 company officers, and 7,000 men of all arms. The militia comprises 356,000 men between the ages of 17 and 45 years, and 52,000 men between 45 and 60 years, who constitute the reserve. The artillery consists of about 250 guns, most of which are Krupp guns between 24 and 75 centimetres calibre; and others of 7 to 15 inches calibre, made on the Rodman, Armstrong, and Parrott patterns. The military school has about 125 cadets, and the school for non-commissioned officers had 120 in 1886.

The navy in 1887 included 1 sea-going armor-clad, 7 armored monitors, 1 unarmored cruiser, 1 sloop, 7 gunboats, 1 torpedo-depot ship, 4 first-class torpedo boats armed with Whitehead torpedoes; and about 20 steamers of various

classes, mostly small. There were also some sailing vessels. The number of guns was about 65. The navy was manned by 1,500 officers and men, of whom 320 were officers, and 370 marines. The naval school had 60 cadets, and the school of gunners 80.

Uruguay supports, at large expense, a considerable force under arms, besides a numerous police, and an organized militia or national guard. The republic also possesses a few armed vessels.

The force in active service consisted, in 1887, of 257 officers, and 3,795 men of all arms, besides a police force of 3,200. The national guard aggregates 20,000 men. The soldiers are armed with Remington rifles, and the government has 67 pieces of artillery. The navy had three gunboats, one steamer of 400 tons, and four smaller steamers.

Paraguay, during her war with Brazil, the Argentine republic, and Uruguay, in 1865–70, kept 60,000 men under arms, including 10,000 cavalry and 5,000 artillery. But the standing army is now, from motives of economy, reduced to a very small number.

In 1887 there were under arms about 350 foot, and 150 horse. About 180 men are garrisoned at Asuncion. Military service is obligatory for all male citizens between the ages of 18 and 55. The war of 1865–70 annihilated nearly the entire male population of Paraguay.

Bolivia has under arms about 3,020 of all arms, including 1,021 officers, of whom 8 are generals. Two-thirds of the country's revenue is expended to support the army.

Perú, in her present reduced circumstances, finds it necessary to limit her military establishment to small proportions. At the end of 1878, the country being at peace, the army consisted of 13,200 men of all arms. In the summer of 1880, during the war with Chili, the force numbered about 70,000 men. The Peruvian navy, in the latter part of 1879, consisted of several unarmored steamers, and 4 ironclads, namely: "Huáscar," "Independencia," "Atahualpa," and "Manco Cápac." The last two were small coast-defence monitors. The Huáscar was captured after a gallant encounter with the Chilian ironclads. The Independencia ran on a rock during an action with the enemy, and was lost.

The military force was, in 1887, reduced to 5,900 men of all arms, including a gendarmerie of 2,400 men. The navy consisted of only two cruisers and two small troop-ships.

Chili has a standing army and navy. The army is raised by conscription, supplemented by voluntary enlistment. The regular army, before the breaking out of the war with Perú and Bolivia, comprised 712 horse, 2,000 foot, and 804 artillery, with 749 officers of all arms. The national guard consisted of 1,215 horse, 21,147 infantry, 1,925 artillery; total, 24,287. But on war being declared the regular army was raised to a strength of 20,000, distributed in three divisions, and the national guard to 30,000, thus forming a total land force of 50,000.

According to an official report, published in the second half of 1880, the Chilian navy comprised 11 war ships, 12 transports, 3 pontoons, and 2 torpedo launches, in all 28 craft, with an aggregate of 20,107 tons, 5,459 horse power, an armament of 83 pieces of artillery, and a personnel of 224 naval officers and 1686 seamen, besides a marine force of 6 officers and 389 men. In the above number of vessels were included six mail steamers, chartered by

the government until the end of the war, and equipped by their owners. There were two powerful iron-clads, the "Almirante Cochrane" and the "Blanco Encalada." The battery of each, protected amidships, consists of 12½ ton rifled guns. During the war the Peruvian iron-clad Huáscar was captured in the bay of Mejillones. The government of Chili supports a school for the education of army officers, and another for naval officers.

The military force had become reduced in 1886 to 6,811 men of all arms. In April, 1884, the navy consisted of the iron-clads Almirante Cochrane, Blanco Encalada, and Huáscar, 3 corvettes, 2 gunboats, one cruiser, and other small vessels. The armament consisted of 31 guns of old style, 32 of modern system, etc. The crews numbered about 1,600 men.

The army of the republic of Santo Domingo usually consists of 3,000 to 4,000 men in time of peace, and about 15,000 on a war footing. The government also possesses a few small armed vessels.

In Hayti, under a law of 1878, the army consisted nominally of 6,828 men, mostly infantry. The government has an especial guard of 650 men.

In ordinary times there were stationed in Cuba, besides the disciplined militia and the so-called militia of Fernando VII, from 15,000 to 20,000 regular troops, all enlisted or drafted in Spain. This force was greatly augmented during the revolutionary war which broke out in 1868. The navy, which consisted of numerous cruisers, was also greatly increased, with a view to keep supplies of men, arms, and ammunition from reaching the insurgents from the coast.

The force on the island was computed in 1886–87 at 26,342 of all arms. For the defence of the Spanish West Indies, Spain maintains, at the Habana naval station, about 68 vessels of all kinds and sizes.

Porto Rico has at all times needed a much smaller military and naval force.

In 1886–87 Porto Rico is said to have had a garrison of 3,566 men, and four or five small armed vessels watching the coast.

The military force that the government of the United States has at its command in case of emergency is almost without limit. In fact, the only limit would be that of the means for its support; and the country's resources are too enormous to be easily exhausted. Being safe, however, from any sudden invasion by a large army, the country maintains a comparatively small force to serve as a nucleus, and this is generally scattered at places where it can be made available against Indian hostilities. The government supports, at West Point, a first-class military academy for the education of officers for the army.

The country's means would enable it to maintain a powerful fleet, but it prefers to have only a sufficient number of vessels to show the flag in all seas and for coast defence. Of late years, since the termination of the sectional war, the navy has been allowed to go to decay, so to speak. The government has been engaged in paying off the national debt, and has carefully watched the experiments made by European powers in the construction of ships and artillery; there is hardly a doubt that much money has been saved by abstaining from costly experiments that have proved failures.

Nevertheless, the government has commenced, within the last four years, the construction of a new navy, and in a short time the country will present on the seas ships that will do honor to its naval constructors, and efficiently uphold the national name and interests wherever they might be assailed. The naval academy, at Annapolis, supplies this arm of the public service with competent officers.

Under laws passed in 1869 and 1870 the number of the standing army is strictly limited. Later it was enacted that after 1875 the number of enlisted men should at no time exceed 25,000 of all arms, exclusive of the signal corps, consisting of 470 enlisted men, and 125 general service clerks, and 45 general service messengers. The actual enlisted number on the 30th of June, 1887, was:

Ten cavalry regiments with	432	officers	and	7,970	men
Five artillery " "	280	"	"	2,650	"
Twenty-five infantry regiments with	877	"	"	12,625	"
Generals, general staff officers, and non-commissioned officers, engineers, ordnance, signal corps, chaplains, military academy, etc	587	"	"	2,395	"
Totals	2,176	"	"	25,640	"

There were 20 general officers (of whom the lieutenant-general has since died, the office with him ceasing to exist), 68 colonels, 89 lieutenant-colonels, 233 majors, 614 captains. The 9th and 10th regiments of cavalry, and the 24th and 25th regiments of infantry are composed of negro soldiers, but have white officers. Each state is required to have a militia, in which every male citizen of from 18 to 45 years of age, and capable of bearing arms, should be enrolled; but the organization is far from perfect in many states. The militia actually organized numbers a little less than 8,000 officers, and nearly 100,000 men. In case of war the number of citizens that might be enrolled in the militia would probably exceed 8,000,000. The territory of the United States is divided into eight military departments, which are grouped in three divisions, namely, Atlantic, Missouri, and Pacific; in the first is the department of the East; in the second are comprised the departments of the Missouri, Dakota, Platte and Texas; and in the third the departments of Columbia, California, and Arizona.

The list of the United States naval vessels contained in 1887, 66 serviceable ones, apart from tugs and sailing vessels. Of the 66, 10 were in the course of construction at several private yards, 4 of which are first-rate cruisers of over 4,000 tons each; 1 second-rate of under 4,000 tons; 3 third-rate of under 2,000 tons; and 2 fourth-rate below 1,000 tons; 1 of the last being a dynamite-gun cruiser. The list includes, besides, 5 double-turreted monitors awaiting completion. The remainder comprise 1 first-rate partially protected cruiser, 10 second-rate cruisers, of which 2 are partially protected; 18 single-turret monitors, and 22 cruisers of the third-rate, and 5 fourth-rate gunboats, including 1 armored torpedo ram. All the 10 new vessels are being built of steel. The construction of a considerable number of powerful vessels has been authorized by congress, in 1886, 1887, and 1888. Some of the new ships have been finished in 1888. The United States possesses 10 navy yards and stations. The personnel of the navy in July, 1887, consisted of 1 admiral, 1 vice-admiral, 6 rear admirals, 10 commodores, 45 captains, 85 commanders, 74 lieutenant-commanders, 250 lieutenants, 75 junior lieutenants, 133 ensigns, and 243 cadets. The appropriation of 1887 provided for 7,500 enlisted men, and 750 boys, besides a marine corps of 2,080 officers and men.

The Bermudas were in former times of great importance as a naval station. At Ireland island, one of the group, is the royal dockyard, and some other considerable naval establishments.

Detachments of the 2nd West India regiments are stationed at Belize, Corozal, and Orange Walk, the senior officer being a major, who had under him two captains, three lieutenants, and two surgeons. A few troops are also stationed on the Bahamas.

In Jamaica the military force stationed in 1887 consisted of 1,133 officers, rank and file, the senior officer under the governor-in-chief and captain-general, being a colonel commanding the troops, which aside from a few artillerymen and engineers belonged to the 1st battalion of the East Yorkshire regiment, and to the 2nd West India regiment. There was also a force of organized militia consisting of 37 officers and 536 men. The British government has a naval station at Port Royal, and a considerable fleet under the command of a vice-admiral, serving on the North American and West Indian stations.

The cost of the military establishment in Jamaica in 1886 to the imperial government was about £51,835. This did not include the expenses on the works on the new fortifications at Port Royal and the Apostles Battery. The contribution of the local government towards the military expenses in 1886 amounted to a little over £25,000. The governer-in-chief reported the militia as animated by an excellent spirit. The major-general commanding in the West Indies had commended the appearance of the men, and the progress they had made in their drill. The cost of the volunteer militia in the financial year 1885–86 was £6,930, and that for 1886–87 had been estimated at about £10,000.

Barbados is the general headquarters of the British West Indian military forces, which are usually under the command of a major-general. The other islands and British Guiana have a small garrison of regulars.

The French, Danish, and Dutch possessions are also provided with a military force sufficient for the preservation of order. The French government usually keeps a number of armed ships on the West Indian station.

The postal service of the Mexican republic has undergone much improvement in late years. The government has not only granted special privileges and exemptions to steamship lines which bring and carry away mails with regularity, but in many cases pays them yearly subsidies. Thus it is that the republic is in frequent and regular mail communication with the United States, the West Indies, and Europe. The internal service has been greatly facilitated with the construction of many railway lines.

A steamer of an American company leaves Vera Cruz every 20 days; one goes to New York, and the other to New Orleans; the first touches at Campeche, Progreso, and Habana; and the other at Tuxpan and Tampico. The steamers of the French trans-atlantic company leave St. Nazaire on the 16th of each month for Vera Cruz via Santander in Spain, St. Thomas, Martinique, and Habana. They go back on the same route. The British regular mail steam-ships leave Southampton on the 2d of each month, and go to Vera Cruz and Tampico by way of St. Thomas and Habana. There are other steamers, those of the West Indian and Pacific company, and of the Harrison line, both from Liverpool, which convey mails. The average European voyage is 25 days. Letters are dispatched via Southampton or Liverpool monthly, and also via the United States, three times weekly. The communications by railway between certain parts of the republic and the United States are daily. In 1882–83 the post offices of Mexico transmitted 19,788,657 letters, newspapers, etc. At the end of June, 1885, there were about 1,000 post offices in the republic. The rates for postage in the interior of Mexico are very high. The foreign are much lower than the domestic. For single letters to points in the interior, not exceeding 16 leagues, 10 cts for each ¼ oz.; 25 cts for ½ oz.; 35 cts for ¾ oz.; 50 cts for each ounce. Single letters to points exceeding 16 leagues used to be 25 cts for ¼ oz.; but after January 1, 1884, it was fixed at 10 cts. Printed matter in unsealed wrappers, 5 cts a pound, or $1.25 for a package weighing 25 pounds. Unsealed business circulars, 5 cts each, or $4 per 100. Printed or engraved cards, on paste-board or vellum, 75 cts a pound. For foreign letters—

each ½ oz. (15 grams), 6 cts; postal cards, 2 cts each. Printed matter of all kinds: 1 ct for 50 grams or less; 2 cts for 100 grams; 3 cts for 150 grams; 4 cts for 200 grams and up to 2 kilograms. Each state has its own stamps, with especial numbers on them. No stamps are permitted to be taken outside of the post office, except at Vera Cruz. The rules of the department require that letters be delivered at the stamp-window, where the amount of postage is to be paid. The officials will attach the requisite stamps. In the city of Mexico letters are received at various shops to be forwarded. There is a regular delivery of letters by carriers in the city of Mexico, and letters addressed to a hotel are delivered promptly. Letters directed simply to the city of Mexico must be called for at the general post office. There are several sub-post offices in the city where stamps may be bought and letters mailed.

In furtherance of proposed improvements in the postal service, 18 new post offices were established, and also 50 agencies, and 58 stations, to bring together places hitherto of less importance which had lain outside the circuit of postal communication, and shut out from all mail communication with the rest of the country. Daily mails have been put on from Mexico city to Acapulco, Tepic, Colima, and Mazatlan. By this means the capital is placed in daily communication with the exchange offices abroad situated on the frontier and maritime points.

During the year ending June 30, 1887, nearly 24,000,000 pieces circulated through the Mexican postal service. The government expected that during the fiscal year 1887–88 the receipts and expenditures of this branch of the postal service would be leveled up. A notable increase has resulted, under the convention of April 4, 1887, between Mexico and the United States, in the traffic in packages of merchandise between the two countries. The government was negotiating a treaty for the same purpose with Great Britain.

The government renewed the contract with the Pacific mail steamship company. There is a steamer subsidised to ply between Vera Cruz, Progreso, and other intermediate ports. A contract was entered into to establish a line between New York and Progreso, touching at Vera Cruz. This line is to receive no subvention whatever, but simply have the benefit of the privileges and exemptions of ordinary mail steamers. The line of steamers which, under a heavy subvention from the Mexican government, discharged the postal service between Mexico, the United States, and Habana, had agreed to continue said service without subvention.

The express enterprise of Wells, Fargo & Company, of San Francisco, has agencies established at several towns of Mexico, namely: City of Mexico, Tula, San Juan del Rio, Querétaro, Celaya, Salamanca, Irapuato. Silao, Guanajuato, Leon, Lagos, Vera Cruz, Chihuahua (city), and the chief Mexican ports on the Pacific. The company also carries a large quantity of mail matter from these ports to San Francisco and to New York.

The states of Central America have mail communication, within themselves, with one another, and with all the nations of America and Europe. They are constantly endeavoring to improve the service, and pay liberal subsidies and grant privileges to steamship companies to secure the swift transportation of mails. They have all joined the Universal Postal Union.

In 1809 there was a postal service between Guatemala and the isthmus of Panamá, by way of Cartago, then the capital of Costa Rica. This was the means that correspondence was kept up with South America. Two years later there was in operation a tri-weekly service between Guatemala and Mexico, Mérida in Yucatan, the Windward islands, and Spain. In 1829 a monthly packet from New York brought the North American and European correspondence for Central America to Chagres. During many years after some sort of mail service was kept up till it assumed regularity, as well as frequency and rapidity, with the establishment of steamship lines. In 1844 the first mail steamship touched at Chagres, and in the next year a line of steamers began to run between Panamá and Valparaiso. In 1846 a post-route was established between the Atlantic and Pacific oceans, under a grant of the British government. The United States government had then in contemplation to establish a line of steamers from Panamá to Oregon, via California. The existing Pacific Mail Steamship company was organized in 1847 for that purpose, and early in October of the same year the "California" sailed, and was soon followed by the "Panamá" and "Oregon." No profits were expected to accrue to the enterprise except from the agricultural resources of the Pacif-

ic coast. The discovery of gold in California made success certain for it, and the company kept up the service between New York and Colón, and between Panamá and San Francisco, touching at Acapulco and Manzanillo. The Panamá Railway company established a regular line of steamers for the transportation of mails, as well as merchandise and passengers, between Panamá and the several ports of Central America, and also several Mexican ports as far as Acapulco. The ships were, early in the seventies, sold to the Pacific mail steamship company, which has since continued the service, pursuant to its contract with the several governments. For several years the American accessory transit company maintained steam communication between New York and San Francisco, their ships visiting the ports of San Juan del Norte and San Juan del Sur, respectively, on the Atlantic and Pacific coasts of Nicaragua, the mails and passengers being transported across the isthmus part of the way by suitable steamers on Lake Nicaragua and San Juan river. In later years the Atlantic coast of Central America has been in direct communication by steam with the United States, the West Indies, and Europe.

Guatemala's post office carried, in 1880, 835,906 pieces of mail matter; in 1881, 1,039,652; in 1882, 1,400,648: in 1883, 912,220 letters, and 1,181,814 newspapers, etc.; in 1884 the exchange of mail matter amounted to 2,912,411 pieces. The receipts in 1884 were $48,342, and the expenditure $46,017. In 1880 the exchange of mail matter in Honduras amounted to 937,531 pieces, and the expenses to $17,102: in 1883 the 33 post offices of Honduras despatched 229,514 letters, newspapers, etc. Salvador has a well conducted mail service. In Nicaragua, owing to long distance and sparse population, the mail service is a source of considerable expense, amounting in 1881-82 to $39,827, against only $19,476 of receipts. During 1883-84 the post offices despatched 1,684,935 letters and packages, viz.: 1,261,808 items of mail matter forwarded inland, and 423,127 forwarded abroad. Receipts, $12,000, and expenses $25,000. In 1888 the government signed a contract with a company to establish a line of steamers to be constantly running between the city of Managua and the port of Momotombo. Costa Rica has been quite successful in her efforts to perfect the internal mail service. The number of pieces forwarded from and received at the main office in San José was, in 1883, 1,377,243, against 1,172,259 in 1882, and 549,096 in 1880. The items of mail matter passed through the post offices in 1885 aggregated 1,828,892.

The postal service of Colombia is still open to much improvement. The country has the benefit of foreign steamship lines to keep it in communication with the outer world, and whose ships bring and carry mails with great regularity. The republic is a member of the Universal Postal Union.

During the fiscal year 1879-80 the post office carried 468,832 letters, and 413,583 newspapers. In 1883-84 the quantity of mail matter was about 1,200,000 pieces.

Venezuela has endeavored to keep up with the times in the matter of mail service. She pays steamship lines for conveying the mails, and otherwise favors them. She joined the Universal Postal Union in 1880. The same is to be said of Ecuador.

Venezuela had, in 1886, 162 postoffices, which dispatched during the fiscal year, 1885-86, 2,784,576 letters and parcels.

The empire of Brazil has facilities of every kind for the conveying of mail matter, both externally and internally. Numerous steamers carry away and bring the correspondence with foreign nations, along the coast, and to and from the towns on the rivers. The government entered the Universal Postal Union years ago.

The following figures express the extent of the postal service: In the fiscal year 1875-76 the number of letters which passed through the post office was 13,161,297, of which 7,200,000 were by way of Rio de Janeiro. At the end of 1878 the country had 1,551 post offices. In 1880 the post office carried 2,815,721 parcels and packets, and 7,063,687 letters. In 1881 there were despatched 19,966,282 pieces, of which about one-half were despatched from Rio de Janeiro; in 1883-84 there were 12,515,008 letters, etc., despatched, and 6,250,729 received; in 1884-85, 24,724,142 letters, and 30,000,000 of parcels, samples, etc., passed through the

post offices. The number of post offices existing in 1885 was 1,999; the receipts of the year were 1,782,000 milreis, and the expenditures 2,838,500 milreis.

The republics of the river Plata have every facility for the transmission of mails to and from foreign countries, and through their territories by land and water. The internal service is every day receiving greater improvements in the Argentine and Uruguayan republics, but Paraguay is as yet backward in this respect.

In the Argentine republic government mail cars were abolished in 1875, and private ones subsidized, thus effecting a saving of about $50,000. The same government negotiated a postal treaty with Great Britain in 1876. On the 1st of April of that year it entered the Berne Postal League. The number of letters which passed through the Argentine post offices in 1885 was 20,050,000; of newspapers and packages, 15,425,000. The receipts and expenditures of the department were: In 1873, revenue, $158,906; expenditure, $436,715; in 1877, receipts, $273,801; outlay, $328,804; in 1885 the amount of postages collected was $709,235. The number of post offices existing in that year was 687.

In Uruguay there were 1,016,082 letters, and 1,216,398 newspapers carried in 1880; in 1886 there were transmitted 3,195,655 letters, 30,642 postal cards, and 8,131,300 samples and printed papers. In recent years the receipts have not covered the expenditures. Uruguay is comprised in the Postal Union route by the British line of mail steamers from Southhampton; the average duration of a voyage is 25 days.

Perú and Chili are in constant mail communication with one another, and all nations in America and Europe; the internal service is quite efficient. Both republics are members of the Universal Postal Union.

In Perú there passed in 1885 through the post offices 1,252,964 letters, postal cards, newspapers, etc. In Chili the transmission of mail matter in 1879 was 7,572,987 letters, and 9,129,748 newspapers and parcels; in 1880, 196,675,509 letters and packages; and 9,129,748 newspapers and parcels. There were 852 post offices at the end of 1880. The postal receipts in 1880 were $204,790, and the expenditure of the department $247,960. In 1885 there were 411 post offices; number of letters despatched, 13,438,489; number of letters registered, 98,899; number of sample packages, 28,668; number of law notifications, 15,598, number of government dispatches, 669,160; number of newspapers, 15,615,069; making an aggregate of mail matter of 29,865,833 pieces, against 24,281,967 in the previous year. The receipts were $888,425; the expenditures, $526,980. There were postal orders issued to the amount of $1,448,608. In 1888 the number of post offices was 460; the number of letters and packages which passed through them was 35,308,210.

St. Domingo and Hayti have mail communications with the United States, Europe, and the West Indies by means of several foreign steamship lines.

The islands of Cuba and Porto Rico enjoy every possible facility of communication with each other, with the mother country, and with foreign nations. Steamers ply regularly on the coasts of Cuba, and lines of steamships, both foreign and under the Spanish flag, convey the mails between the two islands, and between them and Europe, the United States, the rest of the West Indies, and South America. The internal service is carried on with regularity. The islands are included in the benefits of the Universal Postal Union.

The postal service of Cuba with outside countries in the fiscal year 1884-85 was as follows: The post-offices received from abroad 562 mails with letters weighing 7,478,187 grams, and newspapers weighing 10,027,846 grams: they forwarded abroad 714 mails with the respective weight of letters and newspapers of 7,465,758, and 19,176,409 grams.

The postal system of the United States was first organized in 1710, the country being then an appendage of the British crown.

The postmaster-general of the colonies was required to have his chief office for letters at New York, and other chief offices at convenient places in other British provinces or colonies in America. In 1753 Benjamin Franklin was made deputy postmaster-general, and by him was the postal service remodelled and much improved, thereby increasing the revenue of the department. In 1760 he astonished the community by proposing to establish a weekly mail by stage wagon between Philadelphia and Boston, the stages leaving each city on Monday morning and arriving at their destination on Saturday night. Since the organization of the republic postal matters have been entirely under the control of congress. The chief of the department is the postmaster-general residing at the national capital, and a member of the president's cabinet, assisted by three assistant postmasters-general; there is a superindendent of foreign mails, and one of the money-order system. In the department at Washington the number of postmasters, contractors, clerks, letter carriers, route agents, railroad post office clerks, mail route messengers, local and special agents aggregates nearly 60,000 persons. The rates of postage, which in early years were very high and scheduled according to distance, were lowered from time to time, and were finally made uniform throughout the length and breadth of the country. Mail matter is divided into four classes, namely: 1st class, including letters, postal cards, and anything sealed, or otherwise closed against inspection, or anything containing writing not allowed as an accompaniment to printed matter under class three; 2d class, including all newspapers, periodicals, or matter exclusively in print, and regularly issued at stated intervals as frequently as four times a year, from a known office of publication or news agency; 3d class, including books, circulars, unsealed publications for advertising purposes, and other matter wholly in print, legal and commercial papers filled out in writing, photographs, proof-sheets, corrected proof-sheets, and manuscript copy accompanying the same; limit of weight, four pounds, except in the case of single books, when the weight is not limited; 4th class, embracing merchandise and all matter not included in the first, second or third class, which is not liable to injure the mail matter; its weight limited to four pounds. The government of the United States was one of the original signers of the international postal union treaties of 1876 and 1878, for the formation of a general postal union, in which uniform rates of postage should prevail. The countries forming the union constitute a single postal territory for the exchange of correspondence between their territories. The post offices at most of the towns of any importance will issue money orders for any amount from one cent to one hundred dollars. When a larger sum than $100 is required, additional orders must be obtained, not exceeding three orders in the same day, from the same post office to the same remitter, in favor of the same payee. Any money-order post office will issue postal notes for any sum under five dollars, payable to the bearer at any designated post office, within three months after their date.

The free delivery of mail matter at the residences of peoplé desiring it, is required by law in every city of 50,000 or more population, and may be established at every place containing not less than 20,000 inhabitants. The work-day of a letter carrier is by law eight hours.

The rate of postage on matter of the first class is 2 cts for each 1 oz., or for each fraction above 1 oz. On local or drop letters at free-delivery offices, 2 cts, and at offices where there is no free delivery by carriers, 1 ct. Postal cards to any part of the United States, 1 ct, and for foreign countries embraced in the Universal Postal Union, 2 cts. Unclaimed postal cards are never returned to the writer. The postage on second-class mail matter is 1 ct per lb., or fraction of a pound; on third-class, 1 ct for each 4 oz., or fraction thereof on transient newspapers and periodicals, and 1 ct for each 2 ozs., or fractional part thereof on proof-sheets and manuscripts accompanying the same; postage on fourth-class matter, 1 ct an ounce or fraction thereof. All postages on mail matter for the United States must be prepaid by stamps. The post-office department or its revenue is not by law liable for the loss of registered mail matter. The rate of registration is 10 cts in addition to the regular postage. For *immediate* delivery, 10 cts additional postage, prepaid by special stamp, only at offices designated by the P. O. department.

The foreign postage to the countries belonging to the "Universal Postal Union" is 5 cents for each half ounce weight on letters, and 2 cents for two ounces on printed matter. To Canada, New Brunswick, Prince Edward Island, and Nova Scotia, the rate is 2 cents per half ounce on letters; and to Vancouver's Island, 3 cents. To countries not comprised in the Postal Union, the rates are as follows: Cape of Good Hope, 15 cts per ½ oz. on letters, and 4 cts on newspapers; to Greytown, by the British mail, 13 cts per ½ oz. on letters; to Madagascar, by the British mail, 23 cts per ½ oz. on letters, and 6 cts on newspapers; to Morocco, except Spanish West coast, 15 cts per ½ oz. on letters, and 2 cts on newspapers; to Natal, 15 cts per ½ ounce on letters, and 4 cts on newspapers; to New South Wales, New Zealand, Queenstown, and Victoria, direct mail, 12 cts per ½ oz. on letters, and 2 cts on newspapers. Prepayment is optional with nearly all the countries belonging to the Universal Postal Union; but when the postage is not prepaid, double rates are collected.

The following rates are charged for money orders. For orders not over $10, 8 cts; $10 to $15, 10 cts; $15 to $30, 15 cts; and after this adding 5 cts for every additional $10; but from $80 to $100 is only 45 cts. Postal orders or notes under $5 are issued for 3 cts each. Such notes, when duly receipted, are payable at any money-order office in the United States selected by the bearer, even that of issue.

Business of the post office department for fiscal year ending June 30, 1887. Summarized from the annual report of the postmaster-general, December, 1887.

Whole number of post offices in operation in the United States	55,157
Number of presidential post offices (where the salary exceeds $1,000 per annum, and postmasters are appointed by the president and confirmed by the senate)	2,336
Whole length of public mail routes in operation—miles	377,442
Length of railroad routes	130,949
Length of steamboat routes	10,597
Length of other routes (star service)	235,896
Aggregate cost of mail service	$28,031,106
Aggregate postage stamps, envelopes, and cards sold	$45,670,984
Number of registered letters and packages mailed	12,524,421
Amount of fees on registered matter (in addition to postage)	$1,034,687
Number of dead letters and parcels received	5,578,965
Total cost of free-delivery service	$4,618,692
Receipts of postage on local matter at free-delivery offices	$6,691,253
Number of money orders issued (domestic)	9,232,177
Amount of money orders purchased (domestic)	$117,462,661
Average amount of each money order (domestic)	$12.72
Fees received for issue of money orders (domestic)	$912,876
Number of money orders (foreign or international)	615,405
Amount of money orders purchased (foreign)	$9,035,530
Average amount of each money order (foreign)	$14.68
Fees received for issue of money orders (foreign)	$112,093
Cost of the United States ocean mail service	$425,818
Number of postal-notes issued	6,307,552
Amount of postal-notes issued (from 1 cent to $4.99)	$11,768,825
Amount of fees received for postal-notes	$189,844

The following figures are taken from the annual report of the sixth auditor of the United States treasury, in December, 1887:

Sale of postage stamps, stamped envelopes, and postal cards	$45,670,984
Total receipts of the department	47,853,161
Compensation of post masters	11,929,431
Transportation	24,475,759
Total expenditure	52,676,756
Excess of expenditure over receipts	4,823,595
Mail service to June 30, 1888:	
Number of mail routes in operation	24,920
Length of the mail routes, in miles	401,099
Miles traveled per annum	284,908,671
(over 11,000 times the circumference of the globe.)	
Railroad routes	1,987
Steamboat routes	125
Mail messenger service	5,525
Special office service	2,636
Star service	14,247

The postmaster-general is authorized to contract for the transportation of the mails to Central and South America and the Antilles, for a period varying from five to ten years, paying for it at the rate of not less than 1 cent for every 450 grains of weight for letters, and of 1-20 of a cent for the same weight of newspapers, for each nautical mile.

The Bermudas have no regular direct route from Great Britain, but there is a regular weekly communication between New York and the islands; average time, 15 days. Letters are despatched every other week.

The Bahamas are not favored by any line of steamships, but their mails are transmitted either through the United States, or through Habana to be transported by the royal mail steamship company.

British Honduras has post offices at Belize, Corozal, Orange Walk, Mullin's River, Stann Creek, and Punta Gooda. The foreign correspondence is despatched and received via New Orleans. The colony is included in the Universal Postal Union.

The table of the rates of postage is the following: Letters, per ½ oz., 10 cts; post cards, each 5 cts; newspapers, 2 cts each; books and patterns, 3 cts per 2 oz.; commercial documents, not exceeding 2 oz., 6 cts; every additional 2 oz., 3 cts; registration fee, 10 cts. The postage must be prepaid on newspaper and book packets for transmission abroad. The postage to Ascension, Australia, Cape of Good Hope, China, Fiji, Natal, New Zealand, and St. Helena, is 28 cts per ½ oz. on letters, 5 cts on newspapers, 8 cts on books and patterns per 2 oz., and registration fee, 12 cts. Inland postage is as follows: Letters, 3 cts per ½ oz.; 2 cts per 2 oz. for books and patterns; 1 cent on newspapers. The prepayment of all postage and fees must be by postage stamps to the letter or packet. Commission on money orders varies, but at present money orders on Great Britain and Ireland will be granted on paying $6.50 for £1 sterling, plus 5 per cent. The parcel post exists between the mother country and the colony. Parcels are carried by the London line of steamers at the rate of 20 cts per lb. up to 11 lbs.

Jamaica was admitted in 1877 into the Universal Postal Union, under the convention concluded at Berne, on the 9th of October, 1874, by Great Britain and most of the commercial powers. Under a new treaty, entered into at Paris on the 4th of June, 1878, the packet rates of postage were further reduced from Jamaica to all countries comprised in that union, at an uniform rate. The following information answers for all or nearly all the West India islands and Guiana, in connection with their postal facilities:

The rates fixed from Jamaica are 6 pence per single letter of ½ oz. weight, prepaid; if not prepaid, 9 pence; postal cards, 3 cts each; newspapers, 1 penny

each, if not exceeding 4 oz.; other printed papers or patterns, 2 pence per 2 oz. Numerous companies established in Europe have steamers which visit with regularity the ports of Jamaica; and to their number must be added several fruit steamers, which ply between the island and the United States. One line runs between Kingston and New York every fortnight, and one of its steamers makes the circuit of the island three times a month, subsidized by the local government. The mail is despatched from Southampton for the West Indies every alternate Thursday, all going direct to Barbados, whence branch steamers proceed, one every two weeks, from Barbados to Demerara direct; one every two weeks from Barbados to St. Vincent, Grenada, and Trinidad, going every four weeks from Trinidad to Tobago: the other of the two voyages is extended from Trinidad to La Guayra, Venezuela; one every two weeks from Barbados to St. Lucia, Martinique, Dominica, Guadeloupe, Montserrat, Antigua, St. Kitts, and St. Thomas; once every four weeks the voyage is extended from St. Thomas to San Juan, Porto Rico. The French steamship line maintains communication between Barbados, Jacmel, Jamaica, and Colón; proceeding thence, once in four weeks, to Sabanilla, and once in four weeks to Limon in Costa Rica. The homeward routes are the same as the outward, except that the Transatlantic mail steamers return to Plymouth, thence proceeding to Cherbourg and Southampton. The Transatlantic steamers proceed from Southampton to Barbados, and thence to Kingston and Colón. A steamer of the mail company is dispatched from Jamaica every four weeks from Port-au-Prince, Habana, and Vera Cruz, returning by the same route. Another British line despatches a steamer, once a month, on a day fixed by advertisement, from Liverpool for Kingston, via St. Thomas and Port-au-Prince; from Kingston she goes to Vera Cruz and New Orleans. There is a London line whose steamers call at Port Royal once a month en route to Belize. A Glasgow line despatches a steamer monthly, which touches at Kingston. Even Curaçoa is enjoying the facility of mail communication, through the French and Dutch companies. The former maintains several lines, namely: from Nazaire to Colón, and vice versa, touching at Pointe-a-Pitre, Basse-Terre, St. Pierre, Fort-de-France, La Guayra, Porte Cabello, and Sabanilla; from Fort-de-France to Cayenne, via St. Lucia, Trinidad, Demerara, and Surinam; from St. Nazaire to Vera Cruz, via Santander, Corunna and Habana; and from Havre-Bordeaux to Hayti, touching at Lisbon, Madeira, St. Thomas, St. John (Porto Rico), Puerto Plata, Cape Haytien, Port-au-Prince, and Jacmel; from Havre-Bordeaux to Colón, via Santander, Pointe-a-Pitre, Basse-Terre, St. Pierre, Fort-de France, Trinidad, Carupano, La Guayra and Puerto Cabello in Venezuela, and Sabanilla in Colombia.

Accounts are kept in Mexico in dollars and cents. The republic has mints at Álamos, Culiacán, Chihuahua, Durango, Guadalajara, Guanajuato, Hermosillo, Mexico, Oajaca, San Luis Potosí, and Zacatecas; and coins at present gold pieces of $20, $10, $5, $2.50, and $1; silver pieces of $1, 50 cts, 25 cts, 10 cts, and 5 cts; and 1 ct pieces of copper. Gold coins are rarely seen, but they are mentioned to denominate value. The metric system of coinage was adopted several years ago; a few 5 and 10 ct pieces are found sometimes, but in general transactions of buying and selling in shops, and everywhere among the people the old system is still in vogue.

The quarter and half dollars in common use are respectively called dos reales, and cuatro reales, and occasionally peseta and tostón. In small dealings the real is the unit of value; thus it is that a commmodity is worth un real, dos reales, cuatro reales, etc. In bartering with small dealers the word centavo may at times be heard, but such transactions are usually made for tlacos, which is the smallest coin of the old system, and worth 1½ cts. The nickel pieces of 1, 2, 3, and 5 centavos, coined in 1883, having caused popular riots, were withdrawn from circulation. The following are the coins of the old system:

Onza de oro (gold ounce)	$16 00
Media onza de oro	8 00
Pistola, or doblón de á cuatro	4 00
Escudo de oro	2 00
Escudito de oro	1 00

Peso (silver)	$1 00
Tostón (4 reales)	0 50
Peseta (2 reales)	0 25
Real	0 12½
Medio real	0 06¼
Cuartilla (copper)	0 03⅛
Tlaco	0 01 9-16

American silver is current at par. In Vera Cruz American coin is worth 13 to 14 per cent. premium in exchange for Mexican currency. In Monterey and near the American frontier it is worth a little more. The following was the percentage of the total coinage in 1887 at the principal mints: In Mexico, 30.37 per cent.; in Zacatecas, 19.13; in Guanajuato, 15.05; in San Luis Potosí, 11.60; in Chihuahua, 9.67. The lowest percentages were, at Hermosillo, 0.71, and Oajaca, 0.45. The coinage of the first six months of the fiscal year 1887–88 (July 1 to December 31, 1887) was, silver, $13,355,729; gold, $170,160.

In Guatemala accounts are kept in pesos and centavos. The value of the currency is the same as that of Mexico. By a decree of 1870 the government introduced the decimal system, recognizing the peso as the unit. Another law of 1878 provided for the coinage of gold pieces of 1, 2, 5, 10, and 20 pesos, and silver pieces of 8, 4, 2 reales, and 1 real, with half and quarter reales. But the gold coinage has been limited to pieces of $4 and $2.

The standard is of the fineness of 542 grains to $16 of gold, and 492 grains to $1 of silver. Foreign coins circulate at rates fixed by the government. The old moneda macuquina or cut money, which was in circulation from early days, and was still in use for a considerable time after 1870 has been withdrawn.

In Honduras the currency was much vitiated by the introduction of the moneda provisional—copper slightly mixed with silver—in quarter and half dollars, of which $1,500,000 went into circulation since 1839. There has also been in circulation the old cut money, a portion of the Honduran government's coinage, and that of the federal republic, which together with English and American coins constitute the bulk of the currency. The mint now coins 20-dollars gold pieces. Foreign coins pass at their true valuation.

In the republic of Salvador the standard of value is the peso of 8 reales, whose approximate value in English money is 4s. 3½d. and the peso of 100 centavos, worth in English money about 4s. 2d., or in French money 5 francs 25 centimes. Accounts are kept in pesos and centavos.

The coins of England, France, the United States, Spain and the other republics of Central and South America circulate freely in Salvador.

In Nicaragua gold coin is very scarce. Gold coins from the United States, Great Britain, and France, and the silver money of those countries, and of Mexico, Perú, Spain, Switzerland, and Belgium pass current for their full value. There is also a paper currency.

The Peruvian sol, the Chilian peso, and the French 5 franc piece, each of which passes for a dollar, are the coins most in use; and the small silver—5, 10, 20, and 25 ct pieces—include coinage of the United States, Spain, and nearly all the republics of South America.

The monetary unit in Costa Rica is the peso, containing 25 grains of silver of the standard of 0.900. Gold pieces of $10, $5, $2, and $1 are coined; the first having a weight of 16.120. In former

years gold ounces were coined worth $16, with halves, quarters, eighths, and sixteenths.

Foreign gold coins are at a premium in Costa Rica, as follows:

United States eagles	$11	C. R. pesos
English sovereigns	5 87	"
French 20 franc pieces	4 25	"
Mexican doubloon	17 50	"
Perú 20 sol piece	21 25	"

The standard of value in Colombia is the peso of 10 reales, each real being worth 10 cents, but in ordinary transactions the old peso of 8 reales is commonly used, unless the peso fuerte, or peso de ley is stipulated. Colombia coins are the gold condor of $10, and the half condor of $5.

The currency is nearly all foreign. American gold is worth from 38 to 40 per cent. premium for silver. French 5 franc pieces pass current for a dollar. In Panamá all coins are current, but the Peruvian sol is the most common silver coin.

The units of value in Venezuela are the venezolano of 100 centavos, with an approximate value in American money of 100 cents, and in English money of 4s. 2d.; and the bolívar, equivalent to about 1 franc, or 20 cents. In this republic, as in Colombia and Ecuador, accounts are kept in pesos and centavos. The establishment of a mint, late in 1886, at Carácas—all Venezuelan money having been formerly coined in Europe—gave rise to a decree of the government, issued suddenly, and before its coins had been placed in circulation, that no foreign silver whatever should be received in payment of any public dues. The effect of this may be imagined, when it is considered that four-fifths of the circulating medium in Venezuela consisted of foreign silver coins. The banks and leading merchants relieved the distress of the community by accepting, as usual, coins of all countries at a fair value, which would cover the cost of their exportation. Under the law of June 2, 1887, foreign coins circulating in the republic were declared to be merchandise, subject to the requirements of demand and supply.

There is in circulation also the macuquino peso worth 80 cents, and used in domestic trade. The following is the value of foreign coins in circulation:

Gold ounce, or doubloon	$16 00
English sovereign	4 80
French Napoleon	4 00
Dutch 2½ guilder	1 00
Silver dollar of Spain	1 00
English crown	1 20
French 5 franc piece	1 00

A law passed by Ecuador in 1884 declared the unit of the monetary system of the country to be the sucre, equivalent to the French 5 franc piece, and worth in United States currency about 77 cents. The sucre was worth in 1886 only 36⅓ pence.

The sucre is divided into 10 décimos. The money in circulation in Ecuador is chiefly that of the other South American states, as well as that of the United States, England, and France.

In Brazil accounts are kept in milreis of 1,000 reis. The gold coins are of 5, 10, and 20 milreis; the silver, of ½, 1, and 2 milreis. Gold and silver coins have almost disappeared from the country,

the only circulating medium being an inconvertible paper currency in the form of treasury notes, and so depreciated as to have a merely nominal value. Before paper was introduced Brazil had the gold moéda of 4,000 reis, and the silver peso equal in value to a Spanish peso or dollar. The value of a moéda at the present time is 8,000 reis. Copper and bronze coins also circulate.

The milreis, or unit of money, at par should be worth 54⅓ cents; but the paper milreis in circulation is worth only about 36 cents, or even less, its value having been declining every year, but so subject to fluctuations as to seriously prejudice mercantile business. In December, 1886, the milreis was worth 1s. 9½d. The value of the paper money depends, however, on that of the precious metals. English sovereigns are legal tender at 8,889 reis each, since 1857. At the end of 1886 the sovereign was worth 10,971 milreis. A milreis is equal to 27 pence sterling exchange at par. The conto of milreis equals £112, 10s. The par of exchange or value in terms of the United States gold dollar for a milreis of 1,000 reis is 54.6 cents. Doubloons, American gold, English sovereigns, and Mexican dollars are current. The rate of exchange depends on the current value of coin at the time the bills are issued. If a Spanish dollar is worth 2 milreis, then exchange on London will be about 25 pence per milreis for bills at 60 days' sight; on New York, about 50 cents per milreis; and on Paris, about 3 francs, 70 centimes per milreis. The following figures express about an average:

1 rei = 6 cts of U. S. = 3d. Eng. = 0.25 French centimes.
1,000 reis = 1 milreis = 48 cts. = 2s. 0d. = 2 francs 50 centimes.

In the Argentine republic the chief coin is the argentino, of gold, of the weight of 8.0645 grams, and of the fineness of 900 pure gold and 100 copper. The value is that of an English sovereign, and in United States gold currency, $4.824. The half argentino is of half that value. The silver coin is the peso of 100 cents, with its sub-divisions of 50 cents, 20 cents, 10 cents, and 5 cents. There are also copper coins of one cent and two cents. The old patacón currency of 100 centésimos is still somewhat in use. The patacón is worth about the same as the United States silver dollar. The forced paper currency since the beginning of 1885 has suffered great depreciation. I have elsewhere spoken of the way the paper currency was introduced:

In November, 1886, a five-dollar gold piece was worth 6¼ paper dollars. The Argentine currency has the following value abroad:

	Argent. value	U. S. value	Eng. value	French value
100 cents	1 cent	0.96 cents	½ d	5 centimes
500 "	1 peso	96.5 "	4 s	5 francs
	1 argentino	$4.80	20 s	25 "

The peso of paper currency averaged about 2 pence in 1887

In Uruguay accounts are kept in pesos and centenas. The gold currency consists of the onza of $16, and its subdivisions. The silver coin is the peso of 8 reales, or 100 centenas, and its subdivisions; the approximate value of the peso in 1887 was 4s. 3d.

Paraguay has the peso of 100 centenas. Since 1865–70 an extensive paper currency has been introduced. In January, 1871, the value of the English sovereign was fixed at $5. The peso was rated early in 1888 at about 4 English shillings.

The Bolivian peso, or boliviano, has an approximate value of 3 English shillings. The United States government has set upon it the value of 79.9 cents. It is theoretically worth 4s. 2d., but the mint has been for several years past coining them 25 per cent. below the standard.

In Perú the standard of value is the sol, of 100 centésimos or hundredths; its subdivisions are pieces of 50, 20, 10, and 5 centésimos. The government also coins gold money, namely: pieces of 20, 10, and 5 soles. There is a large quantity of paper money in circulation.

The nominal value of the sol is 4 shillings or one dollar, but the real value is 3s. 2d. The United States valued it in January, 1888, at 69.9 cents. The 20 sol piece is worth $20.80 in silver; the 10 sol piece $10.40, and the 5 sol piece $5.20. American gold commands 8 per cent. premium; English sovereigns, about 8½ per cent. on $4.84, their value in the United States. The export of gold and silver coin is prohibited under a heavy penalty. Exchange on London is about 45d. per sol for 90 days drafts; on Paris, 4 francs 70 centimes per sol; on the United States, 2 to 6 per cent. premium for gold drafts of 30 days.

Down to 1878 the government of Peru had never issued paper money. All the paper in circulation had been emitted by the banks at Lima, and the minor ones at Piura, Trujillo, and Arequipa. The notes of the bank at Tacna circulated only there and in Bolivia. A threatening financial crisis prompted the government to aid the banks; the paper in circulation became practically irredeemable; its value fell from 46 pence per sol to 19 pence. The government assumed the responsibility of redeeming the bank paper (about 18,000,000 sols), the banks surrendering the credits they held against the state. The government's guarantee did not improve the situation; little confidence was felt in the government's ability to meet this obligation. Extravagance followed; the government resorted to new emissions, and the exchange value of the paper in use naturally decreased. The war with Chili in 1879 necessitated further issues, until the amount of paper in circulation reaches 85,000,000 sols, and the paper sol fell to 6 pence sterling. All the banks of issue, six in number, closed their doors with more or less delay. Only two banks remained open in Lima, which do not issue paper, both being conducted with foreign capital. The government has been restrained by congress from further issues of paper money. During the occupation of Lima by the Chilians, the latter captured 10,000,000 of soles in notes, and while they refused to receive exactions and impositions in any form but specie, they forced the people to take those notes in payment for such provisions as were paid for. Finally the paper sol was redeemed in value to 2½ or 3 cents of a silver sol, or the equivalent of a penny sterling. All efforts of the government to shield the paper money from annhilation were unavailing. The situation in March, 1888, was thus: the government was responsible for the redemption of the paper; 2,000,000 silver soles could have redeemed 60,000,000 of paper supposed to be outstanding. Only 5 per cent of import duties may be paid in such paper.

Chili maintains a double standard of value. The gold coins are of the value of $10, $5, and $2, and the silver coins are the peso of 100 centavos, and its subdivisions into pieces of 50, 20, 10, and 5 cents. There are also subsidiary coins of 2 cents and 1 cent. The currency is practically a silver one. The government coined in 1884–85, in gold, silver, copper, and nickel, $2,628,658.

The peso is nominally equal to $1, but coined on the basis of the French 5 francs piece. The government of the United States values the peso at 91.2 cents; the gold escudo at $1.82.4; the doblón at $4.56.1, and the condor at $9.12.8. The gold coins are all 9-10 fine. The condor weighs 16.258 grams; the doblón, 7.626 grams; and the escudo, 3.051 grams. The silver coins are also 9-10 fine. The copper coins are the centavo, worth about 9-10 of a cent of the United States. The par of exchange on London is 4s. per dollar, and $5 per pound sterling. The condor is worth £1 17s. 6d. sterling, and the peso 3s. 9d. sterling, or 4 francs 72 centimes.

The standard of value in Hayti is the gourde or dollar, with a nominal value of 100 cents, or 4 shillings; but the United States

treasury values it at 96.5 cents; the English value is 4 shillings 2 pence. French gold and silver coins are in current use, as also bank notes of the National bank of Hayti.

The native currency consists of depreciated paper gourdes and of copper coins. The value of a paper gourde is very fluctuating. It may be approximatively said to be 16 Haytien gourdes for one Spanish dollar, or about 77 gourdes for £1 sterling.

The Dominican accounts are kept in pesos and centavos. There is a large paper circulation, which fluctuates a great deal. The value of this paper may become enhanced by the last financial arrangements of the government in Europe, under which it is to receive from certain French Bankers the sum of $3,000,000 to be applied as follows: $1,000,000 in paying off the Hartmont repudiated debt; $1,000,000 for munitions and armed vessels; and $1,000,000 toward canceling the present liabilities of the government. For the aforesaid sum an indebtedness of $4,200,000 will be recognized.

In the island of Cuba there are three kinds of currency, by which the government levies the imposts, namely: silver and gold coin, and notes of the Banco Español. In speaking of banks I gave information on the organization and operations of this bank.

The coins in use are the following: The peseta, subdivided into 100 céntimos. Its value is 20 cents, and it is used for stamps of all kinds. The escudo, subdivided into 1,000 milésimos; its value is 50 cents, and it is used for custom house tariff. The peso fuerte, subdivided into 10 reales of 10 cents each, or 8 reales of 12½ cents each. The United States treasury values it at 92.6 cents. It is used for direct taxes, and for ordinary purposes. The onza de oro, or gold doubloon, is really worth $16, but has a premium of $1 placed on it by law, in order to prevent the draining of the country of its gold. The subdivisions of the onza are media onza, $8¼; doblon de á cuatro, $4¼; doblon de á dos or escudo, $2⅛, and a few escuditos of $1, current for $1.06¼. The other gold coin is the centen, of which there are isabelinos and alfonsinos, worth $5. English sovereigns are not current, but American coins pass without premium. Coins in use in Cuba have become marketable, gold rising and falling in value in bank paper.

In Porto Rico accounts are kept in dollars and cents, or in escudos of 50 cents value. Spanish coin is the only legal tender.

The standard of value in the United States is the dollar of 100 cts, which is also subdivided into pieces of 50, 25, 20, 10, and 5 cents. The gold coins are the double eagle, $20; the eagle, $10; the half eagle, $5; quarter eagle, $2½; and the gold dollar. The mint also coins 5 cent nickel pieces. The country has likewise, as I have said elsewhere, a large paper circulation, consisting of legal tender notes of the government, commonly known as greenbacks, and of the notes issued by the national banks. Both classes of paper money are current for their par value in gold coin.

Between 1863 and 1878 there were two standards of value in the United States, one being the gold dollar, and the other the paper dollar. The latter became the principal currency after the breaking out of the civil war, and its value fluctuated widely. The "Resumption Act" provided for a return to specie payments on the 1st of January, 1879; but resumption actually took place several months before this date; and thereafter there was no difference between coined money and paper money. The total coinage of the United States mints from 1793 to 1887, has been as follows: gold, $1,446,452,168; silver, $498,613,442; and minor coins, $18,943,636; making a grand total of $1,964,009,246.

In 1887 the lowest price of silver in London was 43¼ pence per ounce, and the highest 47⅛; the average being 44⅝. The average price of pure silver per ounce in gold was 97.9 pence. The value of the United States standard silver dollar of 412½ grains in gold, was 75.64. The total amount coined was $276,716,157. Relative value of gold to silver, 1.20.31.

United States Currency of Value in Gold.

Giving the currency price in dollars of one hundred dollars in gold in the New York market, averaged by months and years, from Jan. 1, 1862, to Jan. 1, 1879.

Periods.	1862	1863	1864	1865	1866	1867	1868	1869
January	102.5	145.1	155.5	216.2	140.1	134.6	133.5	135.6
February	103.5	160.5	158.6	205.5	138.4	137.4	141.4	134.4
March	101.8	154.5	162.9	173.8	130.5	135	139.5	131.3
April	101.5	151.5	172.7	143.5	127.3	135.6	138.7	132.9
May	103.3	148.9	176.3	135.6	131.8	137	139.6	139.2
June	106.5	144.5	210.7	140.1	143.7	137.5	140.1	138.1
July	115.5	130.6	258.1	142.1	151.6	139.4	142.7	136.1
August	114.5	125.8	254.1	143.5	143.7	140.8	145.5	134.2
September	118.5	134.2	222.5	142.9	145.5	143.4	143.6	136.8
October	128.5	147.7	207.2	145.5	143.3	143.5	137.1	130.2
November	131.1	148.0	233.5	147	143.8	139.6	134.4	126.2
December	132.3	151.1	227.5	146.2	136.7	134.8	135.2	121.5
Average of year	113.3	145.2	203.3	157.3	140.9	138.2	139.7	133

Periods.	1870	1871	1872	1873	1874	1875	1876	1877
January	121.3	110.7	109.1	112.7	111.4	112.5	112.8	106.2
February	119.5	111.5	110.3	114.1	112.3	114.5	113.4	105.2
March	112.6	111	110.1	115.5	112.1	115.5	114.3	104.3
April	113.1	110.6	111.1	117.3	113.4	114.8	113.2	106.2
May	114.7	111.5	113.7	117.7	112.4	115.3	112.7	106.5
June	112.9	112.4	113.9	116 5	111.3	117	111.9	105.5
July	116.3	112.4	114.3	115.7	110	114.8	111.8	105.6
August	117.9	112 4	114.4	115.4	109.7	113.5	110.8	104.6
September	114.8	114.5	113.5	112.7	109.7	115.8	109.7	103.5
October	112.8	113.2	113.2	108.9	110	116.5	110.7	102.9
November	111.4	111.2	112.9	108.6	110.9	115.2	109.1	102.9
December	110.7	109.3	112.2	110	111.7	113.9	108	102.7
Average of year	114.9	111.7	112.4	113.3	111.2	115.1	111.5	104.7

Note.—According to the officially-published quotations of the gold market in New York, the currency price of $100 gold reached its maximum on the 11th of July, 1864, the quotations for that day ranging from $276 to $285. The average price of $100 gold for the month of July, 1864, was $258.10.
For the year 1878 the average currency value of gold was $101.43.

Distribution of the Currency of the United States.

October 1, 1887.

Gold	$372,636,022
Silver: standard dollars and bullion	224,624,079
" in treasury (fract. coin) and national banks	33,867,029
Paper: in treasury, less certificates	27,931,550
" in banks, including certificates	155,113,108
Grand total	$814,171,788

Gold Value of United States Currency.

Giving the gold price in dollars of one hundred dollars in currency in the New York market, averaged by months and years, from Jan. 1, 1862, to Jan. 1, 1878.

Periods	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Jan.....	97.6	68.9	64.3	46.3	71.4	74.3	72.2	73.7	82.4	90.3	91.7	88.7	89.7	88.9	88.6	94.1
Feb.....	96.6	62.3	63.1	48.7	72.3	72.8	70.7	74.4	83.7	89.7	90.7	87.6	89.1	87.3	88.2	95
March..	98.2	64.7	61.4	57.5	76.6	74.1	71.7	76.2	88.8	90.1	90.8	86.6	89.2	86.6	87.4	95.4
April...	98.5	66	57.9	67.3	78.6	73.7	72.1	75.2	88.4	90.4	90	84.9	88.2	87.1	88.3	94.1
May.....	96.8	67.2	56.7	73.7	75.9	73	71.6	71.8	87.2	89.7	88	85	89.9	86.3	88.7	93.9
June ...	93 9	63.2	47.5	71.4	67.2	72.7	71.4	72.4	88.6	89	87.8	85.8	90	85.4	89.4	94.8
July	86.6	76.6	38.7	70.4	66	71.7	70.1	73.5	85.6	89	87.5	86.4	91	87.2	89.5	94.7
August	87.3	79.5	39.4	63.7	67.2	71	68.7	74.5	84.8	89	87.4	86.7	91.2	88.1	90.2	95.7
Sept	84.4	74.5	44.9	69.5	68.7	69 7	69.6	73.1	87.1	87.3	88.1	88.7	91.2	86.4	91.1	96.6
Octob'r	77.8	67.7	48.3	68.7	67.4	69.7	72.9	76.8	88.7	88.3	88.3	91.8	91	85.8	90.1	97.2
Nov	76.3	67.6	42.8	68	69.5	71.6	74.4	79.2	89.8	89.9	88.6	92.1	90.2	86.7	91.6	97.2
Dec	75.6	66.2	44	68.4	73.2	74.2	74	82.3	90.3	91.5	89.1	90.9	89.6	87.8	92.5	97.3
Averg'e of year	88.3	68.9	49.2	63.6	71	72.4	71.6	75.2	87	89.5	89	87.9	89.9	86.9	89.6	95.5

For the year 1878 the average gold value of currency was $98.56.

Amount of Paper Money in the United States.

From the reports of the treasurer of the United States and the comptroller of the currency, December, 1887.

The following table shows, by denominations, the amount of national-bank and legal tender notes outstanding on November 1, 1887, and the aggregate amounts of both kinds of notes at the same period in 1886 and 1886; also, in final column, the total of treasury silver certificates outstanding September 30, 1887, which enter into the paper circulation as money.

DENOMINATIONS	1887			1886	1885	1887
	National bank notes	Legal-tender notes	Aggregate	Aggregate	Aggregate	Silver certificates
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Ones.....	391,274	14,319,238	14,710,512	14,728,928	23,139,173	13,979,4 6
Twos	201,598	14,938,315	15,139,913	15,153,741	23,472,420	8,905,996
Fives.....	76,423,525	97,990,310	174,413,835	180,780,750	166,024,949	7,728,242
Tens.....	89,628,710	71,257,924	160,886,634	170,544,844	175,214,680	54,200,876
Twenties....	64,184,080	56,745,463	120,929,543	127,700,743	137,028,787	50,629,016
Fifties.....	15,673,500	21,698,945	37,372,445	39,892,595	43,535,145	5,196,100
100s.....	24,769,400	29,232,820	54,002,220	57,899,920	61,221,790	3,713,430
500s.....	315,500	8,495,500	8,811,000	8,888,500	15,470,500	669,000
1,000s	64,000	32,942,500	33,006,500	33,021,500	22,041,500	521,000
5,000s	.....	50,000	50,000	50,000	95,000	
10,000s.....	.....	10,000	10,000	10,000	80,000	
Fractions outst'nding	23,742	.....	23,742	22,715	21,890	
Totals.....	271,675,329	347,681,016	619,356,345	647,694,237	661,575,834	145,543,150

NOTE—The fractions in the columns of twos to one thousands represent bills outstanding, parts of which have been presented for redemption, and redeemed.

In the hands of the people, Nov. 1, 1885; no later estimate made at the treasury. Gold, $251,476,288; silver, $107,914,611; paper currency, $470,401,878: Total, $829,792,777.

The World's Circulation of Gold and Silver and Paper Money.
From the annual report of the director of the mint of the U. S., Dec., 1883.

Countries	Population		Date of statement	Paper	Specie				Total paper currency and specie	Per capita	
	Year	Last census or estimate			Gold	Silver, full legal tender	Silver, limited tender	Total		Paper	Specie
				$	$	$	$	$	$	$	$
Argentine repub	1880	2,540,000	1882	37,101,756	6,000,000	3,000,000	.....	9,000,000	46,101,756	14 60	3 54
Australia	1881	2,798,898	1882	26,010,722	65,000,000	.....	5,000,000	70,000,009	96,010,722	9 03	25 01
Austria-Hung'ry	1880	35,839,428	1883	299,412,324	44,500,000	74,000,000	.....	118,500,000	417,912,324	8 34	3 31
Belgium	1879	5,536,654	1883	62,841,115	68,000,000	58,000,000	6,500,000	132,500,000	195,341,115	11 38	23 93
Bolivia	1876	2,325,000	1881	1,131,517	.....	5,400,000	.....	5,400,000	6,531,517	49	2 32
Brazil	1880	11,108,291	1883	102,000,000	.....	.....	.....	.....	102,000,000	9 18	.....
Canada	1881	4,506,563	1881	51,081,469	9,326,000	.....	4,500,000	13,826,000	64,907,469	11 33	3 07
Central America	1881	2,891,600	1880	163,347	2,318,000	374,000	.....	2,692,000	2,855,347	06	93
Chili	1876	2,420,500	1881	26,555,341	.....	6,000,000	.....	6,000,000	32,555,341	10 97	2 47
Colombia	1881	3,000,000	1879	1,895,343	500,000	....	4,000,000	4,500,000	3,495,343	63	1 50
Cuba	1877	1,394,516	1882	44,862,543	28,181,000	.....	.....	28,181,000	73,043,543	32 17	22 07
Denmark	1880	2,096,400	1881	20,158,767	14,000,000	.....	4,327,000	18,327,000	38,485,767	9 62	8 74
France	1881	37,321,186	1883	566,594,466	873,000,000	540,000,000	57,900,000	1,470,900,000	2,037,494,466	15 16	39 41
Germany	1880	45,234,061	1883	207,564,732	342,720,000	109,480,000	104,720,000	556,920,000	764,484,732	4 59	12 31
Great Britain	1881	35,246,562	1883	203,534,617	587,683,000	....	93,164,000	680,847,000	884,381,617	5 77	19 31
Greece	1882	1,979,423	1883	23,739,000	2,702,000	2,702,000	.....	5,404,000	29,143,000	12 00	2 73
Hayti	1877	572,000	1881	.....	4,000,000	780,000	.....	4,780,000	4,780,000	.....	8 36
India, British	1881	252,541,210	1882	62,383,126	.....	1,027,000,000	.....	1,027,000,000	1,089,383,126	24	4 07
Italy	1881	28,452,639	1883	294,793,100	160,000,000	40,000,000	20,000,000	220,000,000	514,793,100	10 36	7 73
Japan	1883	36,700,110	1881	140,278,112	93,134,000	46,334,000	.....	139,468,000	279,746,112	3 82	3 80
Mexico	1880	9,557,279	1883	2,058,529	10,000,000	40,000,000	.....	50,000,000	52,058,529	21	5 25
Netherlands	1880	4,061,580	1883	76,871,505	18,000,000	56,489,000	.....	74,489,000	151,360,505	18 92	18 34
Peru	1876	3,030,000	1879	13,098,820	62,000	1,820,000	.....	1,882,000	14,980,820	4 29	62
Portugal	1878	4,550,699	1879	5,023,360	30,000,000	.....	10,000,000	40,000,000	45,023,360	1 10	8 79
Russia	1880	98,323,000	1883	509,945,935	119,769,000	.....	.....	119,769,000	629,714,935	5 18	1 21
Spain	1877	16,625,860	1883	68,875,574	130,000,000	40,000,000	30,000,000	200,000,000	268,875,574	4 14	12 03
Sweden&Norway	1880	6,479,168	1881	33,602,936	12,534,000	....	5,405,000	17,939,000	51,541,936	5 19	2 77
Switzerland	1880	2,846,102	1883	18,283,440	17,000,000	10,000,000	4,700,000	31,700,000	49,983,440	6 42	11 14
Turkey	1880	24,987,000	1882	5,280,000	39,600,000	35,200,000	.....	74,800,000	80,080,000	21	3 00
United States	1880	50,155,783	1883	884,002,074	606,197,000	159,479,000	80,920,000	846,596,000	1,730,598,074	17 63	16 88
Uruguay	1880	438,245	1882	5,986,000	4,601,000	1,000,000	.....	5,601,000	11,587,000	13 66	2 28
Venezuela	1881	2,675,245	1881	250,900	4,000,000	.....	1,000,000	5,000,000	5,250,900	09	1 86

Value of Foreign Coins in United States Money.

As proclaimed by the treasury department, January 1, 1888.

NOTE.—The "standard" of a given country is indicated as follows: Double, where its standard silver coins are unlimited legal tender, the same as its gold coins; single gold or single silver, as its standard coins of one or the other metal are unlimited legal tender. The par of exchange of the monetary unit of a country with a single gold, or a double standard is fixed at the value of the gold unit as compared with the United States gold unit. In the case of a country with a single silver standard, the par of exchange is computed at the mean price of silver in the London market.

COUNTRY.	Standard	Monetary Unit	Par of exchange or value in terms of U. S. gold dollar	Coins
Argentine rep.	Double	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine. Silver—peso & divisions.
Austria	Single silver.	Florin	.34,5	Gold—4 florins ($1.92,9), 8 florins ($3.85,8), ducat ($2.28,7) and 4 ducats ($9.15,8). Silver—1 and 2 florins
Belgium	Double	Franc	.19,3	Gold—10 and 20 francs. Silver—5 francs.
Bolivia	Single silver.	Boliviano	.69,9	Silver—boliviano and divisions.
Brasil	Single gold.	Milreis of 1000 reis	.54,6	Gold—5, 10, and 20 milreis. Silver—½, 1, and 2 milreis.
Canada	Single gold.	Dollar	1.00	
Chili	Double	Peso	.91,2	Gold—escudo ($1.82,4), doubloon ($4.56,1) and condor ($9.12,3). Silver—peso and divisions.
Colombia(U. S. of)	Single silver.	Peso	.69,9	Gold—Condor ($9.64,7) and double condor. Silver—peso.
Cuba	Double	Peso	.92.6	Gold—doubloon($5.01,7). Silver—peso.
Denmark	Single gold.	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Single silver.	Sucre	.69,9	Gold—condor ($9.64,7) and double condor. Silver—sucre and divisions.
Egypt	Single gold.	Pound (100 piastres)	4.94,3	Gold—pound (100 piastres), 50, 20, 10, and 5 piastres. Silver—1, 2, 5, 10, and 20 piastres.
France	Double	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs. Silver—5 francs.
German Emp.	Single gold.	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Single gold.	Pound sterling	4.86,6½	Gold—sovereign (pound sterling) and ½ sovereign.
Greece	Double	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas. Silver—5 drachmas.
Guatemala	Single silver.	Peso	.69,9	Silver—peso & divisions.
Hayti	Double	Gourde	.96,5	Silver—gourde.
Honduras	Single silver.	Peso	.69,9	Silver—divisions of peso
India	Single silver.	Rupee of 16 annas	.38,2	Gold—mohur ($7.10,5). Silver—rupee & divs.

Value of Foreign Coins in United States Money (continued).

COUNTRY.	Standard	Monetary Unit	Par of exchange or value in terms of U. S. gold dollar	Coins
Italy	Double	Lira	.19,3	Gold—5, 10, 20, 50, and 100 liras. Silver—5 liras.
Japan	*Double	Yen { Gold / Silver	.99,7 / .75,3	Gold—1, 2, 5, 10, & 20 yen. Silver—yen.
Liberia	Single gold	Dollar	1.00	
Mexico	Single silver.	Dollar	.75,9	Gold—dollar ($0.98,3), 2½, 5, 10, and 20 dollars. Silver—dollar (or peso) and divisions.
Netherlands	Double	Florin	.40,2	Gold—10 florins. Silver—½, 1, and 2½ florins.
Nicaragua	Single silver.	Peso	.69,9	Silver—peso & divisions.
Norway	Single gold	Crown	.26,8	Gold—10 and 20 crowns.
Peru	Single silver.	Sol	.69,9	Silver—sol and divisions
Portugal	Single gold	Milreis of 1000 reis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Single silver.	Rouble of 100 copecks	.55,9	Gold—Imperial ($7.71,8) & ½ imperial ($3.86,0). Silver—¼, ½, & 1 rouble
Spain	Double	Peseta of 100 centimes	.19,3	Gold—25 pesetas. Silver—5 pesetas.
Sweden	Single gold	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Double	Franc	.19,3	Gold—5, 10, 20, 50 and 100 francs Silver—5 francs.
Tripoli	Single silver.	Mahbub of 20 piastres	.63	
Turkey	Single gold	Piastre	.04,4	Gold—25, 50, 100, 250, and 500 piastres.
Venezuela	Single silver.	Bolivar	.14	Gold—5, 10, 20, 50, and 100 bolivars. Silver—5 bolivars.

In the Bermudas the currency used to be of twelve shillings to the pound sterling; but since 1842 it has been assimilated to that of England.

In British Honduras accounts are kept in dollars and cents.

In Jamaica British and American coins circulate, and also Spanish, Mexican, and Colombian. There are also some nickel coins of the island.

	£	s	d
The following are the values of foreign coins:			
Doubloons, Mexican and Spanish	3	4	0
" Colombian	3	0	0
Aliquot parts in proportion.			
United States gold coins:			
Double eagle	4	2	0
Eagle	2	1	0
Half-eagle	1	0	6
Quarter-eagle	0	10	3
Dollar	0	4	1

Jamaica. Nickel coins: penny, half-penny, farthing.

In the other British islands, accounts are kept in most of them as in England; in others, as for instance in Trinidad, they are kept in dollars and cents.

* Gold the nominal standard; silver practically the standard.

In the French islands the French system is observed altogether.

In St. Croix the Danish dollar of 100 cents is the current coin; it is about eqivalent to an American dollar. The paper money in circulation in St. Croix, as well as in St. Thomas, is of various kinds, namely: Danish credit assigns, notes of the Colonial bank of London, and of the bank of St. Thomas, all at par.

In Dutch Guiana the currency is the guilder of 100 cents, valued at 40 cents in American coin. The only financial institution in Paramaribo is the Bank of Surinam, with a capital of 1,000,000 guilders.

I append some information as to the rulers who governed these countries from the earliest days of the European occupation to the present day, beginning with Mexico.

Governors: Hernán Cortés, governor, captain-general, October 15, 1522; Licentiate Luis Ponce, July 2, 1526; Licentiate Márcos Aguilar, August 1, 1526; Alonso de Estrada and Gonzalo de Sandoval, March 1, 1527; Alonso de Estrada, August 22, 1527.

First Audiencia: Nuño de Guzman, president; Matienso and Delgadillo, oidores, December, 1528. Second Audiencia: Sebastian Ramirez de Fuenleal, president; Juan de Salmerón, Alonso Maldonado, Francisco Ceinos, and Vasco de Quiroga, oidores, 1531.

Viceroys: The viceregal system began in 1535 with Antonio de Mendoza, who assumed office on the 17th of April of that year. After him came a long list, from the second viceroy Luis de Valasco, who began his rule in 1550, to Juan O'Donojú, who was the last, and recognized the independence of Mexico on the 28th of September, 1821. The total number from first to last was 58, including a visitador between 1585 and 1590, and Marcos Torres y Rueda, bishop of Yucatán, who was commissioned only as governor and began to rule in May, 1648. Whenever there was a vacancy in the viceregal office, from death or other cause, and no successor had been nominated, the real audiencia assumed the government and the command, as captain-general, was exercised by the senior oidor, and in later times by the regente or chief justice. This occurred several times.

Regency and Empire: Agustin de Iturbide, Manuel de la Bárcena, Juan O'Donojú, and at his death, Bishop Perez, José Isidro Yañez, and Manuel Velazquez de León: the two last and Bishop Perez were succeeded by the conde de las Heras, Nicolás Bravo, and Miguel Valentin. These men constituted the imperial regency, September 28, 1821. Agustin de Iturbide became emperor June 21, 1822; abdicated March 22, 1823, and was exiled May 11 in the same year. Having returned in 1824 he was shot at Padilla on the 19th of July of that year.

Provisional period. Executive authority: Guadalupe Victoria, Nicolás Bravo, and Pedro Celestino Negrete, a triumvirate. Substitutes: Mariano Michelena and Miguel Domingues, March 31 and April 1, 1823. Owing to resignations, the persons who finally had charge of the executive authority were Bravo, Victoria, Vicente Guerrero, or Domingues, until the republic was constituted.

Republican régime. Presidents: Guadalupe Victoria, October 1, 1824; Vicente Guerrero, April 1, 1829; José M. Bocanegra, provisional, December 16, 1829; Pedro Velez, Lucas Alamán, and Luis Quintanar, in charge of the government, December, 1829; Anastasio Bustamante y Oseguera, vice-president in charge, January 1, 1830; Melchor Muzquiz, August 14, 1832; Manuel Gomez Pedraza, December 24, 1832; Valentin Gomez Farías, vice-president in charge; Antonio Lopez de Santa Anna, president, April 1, 1833: Miguel Barragán, in charge, January 28, 1835, José Justo Corro, February 27, 1836; Anastasio Bustamante, April, 19, 1837; Antonio Lopez de Santa Anna, provisional president, October 7, 1841, and president June 8, 1844; José Joaquín Herrera, president, September 16, 1845; Mariano Paredes y Arrillaga, provisional, January 3, 1846; Nicolás Bravo, provisional, vice-president, July 28, 1846: José Mariano Salas, provisional vice-president, August 22, 1846; Santa Anna, provisional, December 23, 1846; Pedro María Anaya, substitute president, April 2, 1847; Manuel de la Peña y Peña, provisional, September 26, 1847; Pedro M. Anaya, ad interim, November 2, 1847; Manuel de la Peña y Peña, as president of the supreme court, January 8, 1848; José Joaquín Herrera, June 3, 1848; Mariano Arista

January 15, 1851; Juan B. Ceballos, president of the supreme court, in charge of the executive, January 6, 1853; Gen. Lombardini, February 7, 1853; Santa Anna, dictator, April 20, 1853; Martin Carrera, August, 1855; Juan Alvarez, ad interim, October 4, 1855; Ignacio Comonfort, December 8, 1855; Benito Juarez, liberal, as president of the supreme court, became the legitimate president, January 19, 1858; Felix Zuloaga, conservative, January 22, 1858; Miguel Miramón, conservative, December 30, 1858. Miramón being finally defeated fled from the country, and Benito Juarez was recognized by nearly all the country as the lawful president. It was during his presidency that the invasion of the country by foreign forces occurred, followed by that of the establishment by the French of an empire with Archduke Maximilian, of Austria, as the so-called emperor, August, 1863; which episode ended with the abandonment of Mexico by the French forces, and the execution of Maximilian soon afterwards. Benito Juarez, constitutional president, October, 1867; and reëlected, 1879; Sebastian Lerdo de Tejada, provisional, July 18, 1872, constitutional president, September, 1872; reëlected, 1876; Porfirio Diaz, provisional, December, 1876; constitutional president, April 2, 1877; Manuel Gonzales, December 1, 1880; Porfirio Diaz, December 1, 1884; and reëlected in 1888.

The provinces of Central America were from the time of their conquest ruled by governors appointed by the crown. A royal audiencia was established at Panamá which had jurisdiction over those provinces, and was subsequently removed to Gracias á Dios, in Honduras, with the name of Audiencia de los Confines, whose first president was Alonso Maldonado. The first term of the court was held there in 1545. The audiencia was removed to Panamá under royal orders of 1563, but this being found inconvenient, the court was finally transferred to Santiago de Guatemala, and Antonio Gonzalez was appointed its president, who, together with the oidores, arrived at Guatemala about January, 1570. From that time Guatemala was the seat of the audiencia and general government of the Central American provinces, which was termed presidencia y capitanía general de Guatemala. After they detached themselves from the Spanish crown, the provinces were for a time constituted as a federal republic, and this being disrupted, they assumed the title of states, and finally became independent republics, as they are at present.

Maldonado's successors, prior to the transfers above spoken of, seem to have been named Cerrato, Quesada, and Landecho. After Gonzales came Villalobos, Valverde, Rueda, Sandé and Castilla. The last assumed office in September, 1598. Among the succeeding presidents I find the names of Caldas, Barrios, Cosio, Rivas, etc. From 1752 to 1773 there were eight presidents of high military rank, with the additional title of captain-general. In the latter year Martin Mayorga assumed the office. Both he and his successor, Matias de Galvez, became viceroys of Mexico. The last Spanish rulers were: José Estacheria, late governor of Nicaragua, 1783; Bernardo Troncoso Martinez del Rincón, José Dolmas y Valle, 1794-01; Antonio Gonzalez Mollinedo y Saravia, 1801-11; José Bustamante y Guerra, 1811-18; Cárlos Urrutia, 1818-21; and Gavino Gainza, 1821. The last of these rulers, acting in conjunction with the citizens of Guatemala, proclaimed the independence of the Central American provinces and harnessed them to Mexico's imperial car, after doing which he abandoned the country, being superseded by General Filisola. This officer held command over the provinces during Iturbide's empire, but after his downfall did not oppose secession from Mexico. The Congreso or Asamblea Nacional Constituyente was in session 19 months, engaged in organizing the federal republic, entitled Provincias Unidas del Centro de América. Meantime the executive authority was in the hands of a triumvirate composed of Manuel José Arce, Pedro Molina, and Juan Vicente Villacorta. Arce shortly afterwards resigned his position, and was succeeded by José Manuel de la Cerda.

First president of the republic, Manuel José Arce, and vice-president, Mariano Beltranena, April, 1825; Beltranena, acting president, February 27, 1827; José Francisco Barrundia, president, June 25, 1829; Francisco Morazan, September 16, 1830; Pedro Molina, provisional president, 1830; José Valle, presi-

dent, elected in 1834, died March 2 before his inauguration; Francisco Morazán, reëlected 1834; his term ended February 16, 1839; José Gregorio Salazar, vice-president, chosen June 2, 1834; while President Morazan was absent in command of the forces in the field, Salazar acted as president; early in 1840 the republic became dissolved; Vice-president Salazar was murdered; President Morazan abandoned the country April 5, 1840. Gobierno nacional provisorio, Antonio José Cañas, supremo delegado, April, 1842; Fruto Chamorro, supremo delegado, March, 1844. This was the last attempt to reinstitute the republic, and it failed. Chamorro closed up his office and retired. After this the states acted for themselves, each having at its head a jefe, except Nicaragua, who gave her chief executive the name of director. I will now append the names of the chiefs of the several states.

Guatemala jefes: Juan Barrundia, 1824; Cirilo Flores, 1825; Mariano Aycinena, 18.7; Juan Barrundia, reinstated, 1829; Pedro Molina, 1829; Rivera Cabezas, 1830; Gregorio Marquez, 1830; Mariano Galvez, 1831, and at end of his term reëlected; Pedro Valenzuela, 1838; Marcelo Molina, jefe of the seceded state of Los Altos, December, 1838; Mariano Rivera Paz, jefe of Guatemala, July, 1838; Cárlos Salazar, 1839; Mariano Rivera Paz, reinstated April, 1839; Venancio Lopez, provisional, 1841: Bernardino Lemus, provisional, 1841; Mariano Rivera Paz, reinstated May, 1842; Rafael Carrera, president, December, 1844; Joaquin Duran, acting, February, 1845; Rafael Carrera reassumes, 1845; Vicente Cruz, acting, 1847; Rafael Carrera retakes the reins, January, 1848; Juan Antonio Martinez, president, Carrera having been deposed and exiled, August, 1848; José Bernardo Escobar, November, 1848; Mariano Paredes, January 1, 1849; Rafael Carrera, reinstated August, 1849; Rafael Carrera, elected for the term of January 1, 1852, to January 1, 1856; but proclaimed president for life in October, 1854, and held the position till his death in April, 1865; Pedro de Aycinena, acting, April to May 24, 1865; Vicente Cerna, president, May 24, 1865; reëlected, and was again inaugurated, May 24, 1869; deposed by a revolution, he abandoned the country; Joaquin Garcia Granados, provisional president, June 30, 1871, and held the position till the 4th of June, 1873. During that time the executive office was on two occasions in charge of Justo Rufino Barrios, in the absence of President Garcia Granados. Barrios having been chosen president, was finally inducted into office on the 4th of June, 1873. He was subsequently reëlected several times, the last having been for the term from March 1, 1880 to March 1, 1886, and held the office until his death, having been slain in battle on the 2d of April, 1885. During his last term, he made a visit to the United States and Europe, in 1882; Alejandro Sinibaldi, acting pro tem.; Manuel Lisandro Barillas, provisional; the same. constitutional president, chosen November 22, 1885; he is at present discharging the executive duties: the vice-president, elected at the same time and for the same term, Vicente Castañeda.

Honduras jefes: Dionisio Herrera, 1824; José Justo Milla, vice-jefe, 1827; Francisco Morazan, provisional, 1827-28; Gerónimo Zelaya, June, 1828; Diego Vigil, vice-jefe, 1829; Juan A. Arias, provisional, 1829; José Santos del Valle, provisional, 1830; José A. Márquez, jefe, 1831; Joaquin Rivera, jefe, 1833-36; during his term several persons had charge of the office, when he was ill or absent; F. Ferrera, acting, 1833; J. M. Bustillo, acting, 1835; J. M. Martinez, provisional, 1837; Justo J. Herrera, jefe, 1837; León Alvarado, provisional, 1838; Felipe Medina, provisional, 1838; José Alvarado, provisional, 1838; León Matute, 1838-39: Juan F. Molina, 1839; José M. Guerrero, 1839; Francisco Zelaya, 1839; the last four named were provisional jefes; F. Ferrera, president, January, 1841; Coronado Chavez, president, 1845; Juan Lindo, 1847; the same reëlected twice, the last time for the term beginning February 1, 1852; but he refused the last election, and Trinidad Cabañas was chosen his successor and assumed his duties March 1, 1852; he was overthrown July 6, 1855; the office went into the hands of vice-president S. Bueso, who, pleading ill health, left it in charge of Senator Francisco Aguilar, October 14, 1855; Juan Lindo, provisionally, 1856; Santos Guardiola, February, 1856; the same reëlected, and on the 11th of January, 1862, was assassinated; Victoriano Castellanos, 1862; in his absence Senator J. M. Medina had received the office from J. F. Montez; José F. Montez, provisional, 1863, deposed; José María Medina, provisional, June, 1863; Medina, by elections and reëlections, held the executive office till 1871, when he was overthrown, and Céleo Arias became provisional president, who in his turn was deposed by a revolution under Ponciano Leiva, who became acting president in November, 1873. Finally Marco Aurelio Soto was made president by President Barrios of Guatemala; this took place through the transfer of the executive office to Crescencio Gomez, in 1876. by Marcelino Mejia, who held it; Gomez offered it to Medina, who declined it, and con-

cluded to surrender it to Soto on the 18th of August, 1876. The latter was elected in 1877 constitutional president, and was formally inaugurated May 29. During his term ex-president Medina attempted a revolution, was defeated, taken prisoner, tried, and executed. Soto resigned the presidency from San Francisco, California, in 1883, and was succeeded by Luis Bogran, who was subsequently elected constitutional president. His term expired on November, 27, 1887; but he still holds the executive office, having been reëlected for another term.

Salvador jefes: Juan V. Villacorta, 1824; Mariano Prado, 1826; José M. Cornejo, 1829; Mariano Prado, 1832; San Martin, vice-jefe, 1833; Cárlos Salazar, jefe, 1834; Gregorio Salazar, 1834; Nicolás Espinosa, April, 1835; Francisco Gomez, provisional, 1835; Diego Vigil, April, 1836; Timoteo Menendez, vice-jefe, September, 1836; Antonio José Cañas, as councillor, May, 1839; Norberto Ramirez, provisional, September to end of 1840; Juan Lindo, January, 1841; Pedro Arce, April, 1841; Escolástico Marin, provisional, February, 1842; Juan José Guzman, 1842; Pedro Arce, vice-president, 1843; Francisco Malespin, 1844; deposed in 1845, and finally killed; Joaquin E. Guzman, vice president, 1843; after Malespin's overthrow Joaquin Eustacio Guzman, the vice-president, acted as the executive till the first of February, 1846, when he surrendered it to Senator Fermin Palacios, who held it till he was succeeded by Eugenio Aguilar, the elect of the general assembly; Doloteo Vasconcelos, president, February 7, 1848; he is deposed by Carrera, of Guatemala; Francisco Dueñas, 1852-53; José María San Martin, 1853; Rafael Campo, president, Francisco Dueñas, vice-president, 1856-57; in 1856 Salvador constituted herself as a free and sovereign republic; Miguel Santin del Castillo, 1857. Santin was forced to resign in 1858; Gerardo Barrios, 1858; he obtained from the legislative assembly not only a sanction of his acts in overthrowing Santin, but also an extension of the presidential term from two to four years. He was elected constitutional president; he was overthrown in 1862, mainly by Carrera of Guatemala, and left the country. He subsequently returned to Central America, was surrendered to his successor, Francisco Dueñas, who had him tried by court-martial and shot, in 1865. Dueñas was president, first provisionally and afterward elected and reëlected until April, 1871, when he was overthrown. His successor, Santiago Gonzalez, was provisional president, and later constitutional president to February 1, 1876; Andrés Valle, president, Santiago Gonzalez, vice-president, February 1, 1876; both defeated and overthrown by President Barrios of Guatemala in April of the same year. Rafael Zaldivar, provisional president, later constitutional executive, and twice reëlected, held the office from April, 1876, to August, 1885. During his incumbency he obtained a leave of absence from congress, and made a short visit to Europe in 1884. Being overthrown in 1885, he left the country. Francisco Menendez became the provisional president on the 19th of July, 1885, and by subsequent election on the first of March, 1887, the constitutional president of the republic for a term of four years.

Nicaragua chiefs: Juan Argüello, jefe-politico, 1823; Cármen Salazar, 1824; Manuel Antonio de la Cerda, jefe, April, 1825; he was deposed and subsequently executed; Juan Argüello, vice-jefe, 1825; José Zepeda, April, 1835; he was murdered; José Nuñez, vice-jefe, succeeded Zepeda; Pablo Buitrago, director, 1841; Manuel Perez, 1843; Emiliano Madrid, acting director, January, 1845, was shot; José León Sandoval, 1845; Manuel Perez, 1846; Miguel R. Morales, acting director, March, 1847; José Guerrero, director, 1847; Norberto Ramirez, 1849; José L. Pineda, 1851; Fruto Chamorro, 1853; Francisco Castellón, 1853; two rival chiefs; the latter brought William Walker into Nicaraguan politics in June, 1855; Castellón died September 2, 1855; Nazario Escoto succeeded him. Chamorro's death occurred in March, 1855, and José María Estrada succeeded. After considerable fighting Estrada's forces were defeated and he ceased to be a factor. Escoto recognized Patricio Rivas, the provisional president made by Walker, who had assumed his official duties on the 20th of October, 1856, at Granada. Rivas subsequently fled and established his government at Leon. Subsequently William Walker had himself elected president of Nicaragua, and was formally inducted into office by his troops and a few Nicaraguans, at Granada, on the 12th of July, 1856; after Walker's defeat and removal from the country, the executive office was for a time, in 1857, in charge of a gobierno binario, composed of Máximo Jeréz and Tomás Martinez, until the last was elected constitutional president, and assumed his duties November, 1857. He held the office by reëlection till March 1, 1867, when he surrendered it to Fernando Guzman; Pedro Joaquin Chamorro, acting president while Guzman was in command of troops in the field. Guzman resumed his executive duties in October, 1867, and at the expiration of his term surrendered the office to his constitutional successor, Vicente Quadra, March 1, 1871, whose term

ended March 1, 1875; Pedro Joaquin Chamorro, 1875 to 1879; Joaquin Zavala, 1879 to 1883; Adán Cárdenas, 1883 to 1887; Evaristo Carazo, March 1, 1887 to March 1, 1891, is now discharging the presidential functions.

Costa Rica: From the time of the Spanish occupation of the country in 1540 to 1820, that is to say, during the colonial régime, 44 persons held the office of governor and captain-general under the Spanish crown; the first two having been Hernán Sanchez de Badajoz in 1540, Diego Gutierres in 1541, and the last two, Tomás Acosta, in 1819, and Juan Cañas in 1820. After the separation from the Spanish crown, from 1821 to 1824 the state was ruled by a triumvirate, composed of Manuel Peralta, Rafael Osejo, and Hermenegildo Bonilla. Subsequently, until the virtual dissolution of the federation, when Costa Rica assumed the status of a republic, by jefes, named as follows: Juan Mora, 1825–33; José Rafael Gallegos, 1833–34; Juan José Lara, 1834–35; Braulio Carrillo, 1835–37; Manuel Aguilar, 1837–38. Presidents: Braulio Carrillo, 1838–42; Carrillo was overthrown by Francisco Morazan in April, 1842. Morazan seized the government in his last effort to restore the Central American republic, and held it till September of the same year, when he was taken prisoner and shot in cold blood; José M. Alfaro, 1842–44; Francisco M. Oreamuno, 1844–45; José Rafael Gallegos, 1845–46; José M. Alfaro, 1846–47; José M. Castro, 1847–49; Juan Rafael Mora, deposed, and having returned to recover his authority, was taken prisoner and shot. José M. Montealegre, 1859–63; Jesús Jimenez, 1863–66; José M. Castro, 1866–68, overthrown; Jesús Jimenez, 1868–70, overthrown; Bruno Carranza, provisional, 1870; Tomás Guardia, 1870–76; Aniceto Esquivel, 1876; Vicente Herrera, 1876–77; Tomás Guardia, 1877–82. From 1870 to 1882 the executive office was provisionally, for a few months at a time, in charge respectively of José Antonio Pinto, Salvador Gonzalez, Salvador Lara, Rafael Barroeta, and Joaquin Lizano. At the death of Guardia, Saturnino Lizano had charge of the government during a few days. Próspero Fernandez, 1882–85; he died in office. Bernardo Soto, 1885—present incumbent.

The republic of Colombia has been variously constituted, and under several forms of government from the time the country was first discovered and occupied by the Spanish conquerors. The first portion of her territory which the Spaniards took possession of was the isthmus of Darien. This territory, together with Nueva Andalucia, as Venezuela was called, formed early in the 16th century the reino de Castilla del Oro. The Spanish power became consolidated in the country, to which was given the name of Nueva Granada, about the middle of the 16th century. From 1549, when the real audiencia was first established, to 1721, there were 23 presidents, and then the conde de la Cueva was made viceroy; his rule was from November 27, 1723, to May 17, 1824; by his advice the government was again reduced to a mere presidency, and it continued so until 1740, when the rank of a viceroyalty was restored, the viceroy being clothed with the same powers as his confrère of New Spain. The viceroyalty comprised two districts, namely: Santa Fé, or Nueva Granada, which included the isthmus of Panamá, and consisted of nine provinces; and Quito, which in later times came to bear the name of Ecuador, and also had nine provinces. Till 1710 Quito had belonged to the viceroyalty of Perù. The chief authority of Quito, namely its governor and captain-general, was a subordinate of the viceroy except in his capacity of president of the real audiencia of Quito. Down to 1731 Venezuela or Nueva Andalucía was also an appendage of the viceroyalty, but in that year it was constituted as a separate capitanía general. The viceroy's term of office was usually five years. Sixteen viceroys governed prior to 1821; the last Spanish ruler was Juan de la Cruz Murgeon, who was not commissioned a viceroy, but simply captain-general. The last president of Quito was Melchor de Aymerich.

After the separation of these countries from Spain, Nueva Granada, Venezuela, and Ecuador were constituted as one republic under the name of Colombia, in 1821, which was destined to be of short duration; for in 1830 the confederation was disrupted, and the three component parts constituted themselves separately as the republics of Nueva Granada, Venezuela, and Ecuador. In 1860 Nueva Granada, after a bloody war, assumed the form of a federal republic under the title of Estados Unidos de Colombia, for which a constitution was enacted in 1863, recognizing the sovereignty of each one of the nine states. This régime continued in force until a successful revolution overthrew it; a new constitution was decreed in August, 1886, and the former states were reduced to mere departments, subject to a centralized government. Venezuela also adopted, in 1864, the federal form of government, with the name of Estados Unidos de Venezuela, with 21 states, a federal district, and one territory. A new constitution in 1881 reduced the number of states to only eight, with a federal district, and organized several territories. With these premises I will subjoin lists of the rulers of the three republics from the time they acquired their independence from Spain.

First republic of Colombia:—Simón Bolívar, December 17, 1819, and confirmed in 1821; Francisco de Paula Santander, vice-president, in charge of the executive during Bolívar's campaign in Perú, Bolivia, etc., until the president's return in 1826. Both Bolívar and Santander were reëlected to their respective offices, and reinaugurated in January, 1827. Santander resigned the vice-presidency in November, 1827; Simón Bolívar, dictator, August 27, 1828; Simón Bolívar, president, reëlected in 1830; shortly after he resigned the executive office and retired; his death occurred on the 17th of December, 1830.

Republic of Nueva Granada: Francisco de Paula Santander, first president, March 9, 1832; José Ignacio Marquez, 1836; Pedro A. Herrán, 1841; Tomás C. de Mosquera, 1845; Lopez, 1849; José María Obando, 1852; José María Obaldía, vice-president in charge, 1853; Mariano Ospena, 1857, deposed in 1859 by Tomás C. Mosquera, who became dictator.

Estados Unidos de Colombia: Tomás C de Mosquera, president, 1863; Manuel Murillo Toro, 1864; Tomás C. de Mosquera, 1866; he was deposed and sent into exile; Santos Gutierrez, 1868; E. Salgar, 1870; Manuel Murillo Toro, 1872; Santiago Perez, 1874. The next presidents, Aquileo Parra, 1876; Julian Trujillo, 1878; Rafael Nuñez, 1880; F. J. Zaldúa, 1882, who died in December of the same year; his term was completed by José E. Otálora. Rafael Nuñez, whose term was from 1884 to 1886, headed in 1885 the revolution which set aside the federal government. Nuñez was reëlected president of the new republic of Colombia for six years, his term commencing in December, 1885. He has since been absent from the capital on several occasions; once vice-president Eliseo Payán was in charge of the executive, but Nuñez had him set aside, and his office abolished. In September, 1888, Cárlos Holguin was occupying the executive chair.

Venezuela: José Antonio Páez, 1830; Doctor Vargas, 1835; José Antonio Páez, 1839; Cárlos Soublette, 1843; before his term ended he retired, and Páez was clothed, with dictatorial powers to suppress a war of races; José Tadeo Monagas, 1847: José Gregorio Monagas, 1851; José Tadeo Monagas, 1855; he was overthrown in 1858. The next president was Falcón, who held the office for several years, until he was deposed; José Antonio Páez, 1861; Antonio Guzman Blanco, 1869, dictator; president from February, 1873, for four years; reëlected again in 1882; Joaquin Crespo, his term expiring February 20, 1886; Guzman Blanco reëlected for another term; Hermógenes López held the executive office in 1887, Guzman Blanco going to Paris to arrange financial and other affairs of the republic. Juan P. Rojas Paúl, president, July, 1888.

Ecuador: Juan José Flores, first president, 1830; Rocafuerte, 1835; Flores, 1839, and again reëlected in 1843 for eight years; but after a short tenure left the country with the title of generalissimo, and a salary of £20,000; Roca: Diego Noboa, 1850; Urbina, dictator; Francisco Robles, 1856; resigned and left the country; there was a provisional government until Gabriel García Moreno

was elected president by a national convention in 1861; he declared himself dictator in August, 1864, but had to resign his power and retire in September, 1865, when Gerónimo Carrión was called to occupy the presidential seat, which he resigned in November, 1867; Francisco Javier Espinosa, elected president in January, 1868; he was overthrown early in 1869 by Gabriel García Moreno, who assumed the powers of dictator. Rafael Carvajal occupied the chair which García Moreno had resigned; García Moreno elected president in 1870 for six years; he was assassinated August 14, 1875; Antonio Borrero, December, 1875; he was overthrown soon after by Ignacio de Veintemilla, who assumed dictatorial powers, and was later elected president, September 8, 1876, and inaugurated in December of the same year; appointed dictator for an unlimited time by a convention on the 10th of July, 1878, and confirmed by a pronunciamiento of April 2, 1882; José María Plácido Caamaño, president, 1884–88; Antonio Flores chosen for the next term, assumed the duties of his office, which in his absence had been temporarily discharged by the vice-president from June 30, 1888, at 12 M.

Brazil, soon after its discovery was divided into captaincies, a certain extent of country from 50 to 100 leagues of coast, and from 40 to 50 leagues inland, or more, being guaranteed to each captain on condition of establishing colonies at their own expense, but subject to the crown. The first grantees, or donatarios as they were called, who held the captaincies, were Martin Affonso de Souza, Pedro Lopez de Souza, Vasco Fernandez Coutinho, Pedro Campo Tourinho, Jorge de Figueredo, Francisco Pereira Coutinho, Duarte Coelho Pereira, Pedro de Goes, and Joao de Barros. These donatarios made many sacrifices in their efforts to establish settlements until their resources became exhausted, when the crown of Portugal resolved to erect a regular colonial government, and Thomé de Souza became the first governor-general of Brazil, in April, 1549.

Souza's successors were Duarte da Costa and Mem da Sa, the last named ruling 14 years. After being divided for a short time into two governments, Brazil was again united in 1578, in charge of Diego Laurenco da Veiga as governor. When Portugal was annexed to the crown of Spain in 1580, the Brazilian settlements were greatly neglected; they were held to be inferior to other Spanish possessions as regarded the precious metals. Finally Pernambuco and other ports fell into the hands of the Hollanders, between 1623 and 1629, and Prince John Maurice, of Nassau, became the governor-general for and on behalf of the Dutch republic. After Portugal separated from Spain, and peace was concluded with that republic, Prince Maurice was recalled. The Portuguese recovered the Brazilian possessions in 1654, and the Dutch renounced all claims to the country in 1660. Then the king erected Brazil into a principality, and conferred the title on his heir apparent. The troubles with Napoleon Buonaparte, which led to his occupation of Portugal, brought the royal family to Brazil, and for a time this principality was the chief portion of the Portuguese monarchy. On the fall of Napoleon Brazil became a kingdom, with João VI as king of the united kingdom of Portugal, Algarves, and Brazil, after the demise of Queen Maria I, in March, 1816. João VI went to Portugal in 1821, leaving his son and heir, Pedro, as his lieutenant in Brazil. In May, 1822, Prince Pedro was proclaimed protector and perpetual defender of Brazil. The country was declared an independent empire on the 12th of October, 1822, with Dom Pedro I as emperor, and on the 1st of December he was crowned. Pedro I abdicated the throne on the 6th of April, 1831, in favor of his son Pedro, an infant, and departed for Portugal. A regency ruled Brazil in the name of the infant emperor, Pedro II. Political disturbances followed, which were finally stopped by proclaiming the emperor of age, on the 23d of July, 1840; he was crowned on the 18th of July, 1841. This prince is still living and reigning over Brazil.

The Spaniards, concentrated in Paraguay, where Asunción had been founded, extended their explorations over the whole Plate region and made many settlements, including those of Santa Fé,

Salta, Tucumán, Córdoba. The town of Buenos Aires was refounded in 1580, giving it the name of Ciudad de la Santísima Trinidad, Puerto de Santa María de Buenos Aires. Juan de Garay was made lieutenant-governor of these countries, subordinate to the viceroyalty of Perú. In 1620 Buenos Aires was detached from the government at Asunción, and organized into a separate capitanía-general, with jurisdiction over Mendoza, Santa Fé, Entre Rios, and Corrientes, but like the government of Asunción and Tucumán, continued as a dependency of the viceroyalty of Perú. Montevideo in Uruguay was founded by Spaniards from Buenos Aires. Both Spain and Portugal claimed Uruguay under the papal award, but the region finally went to the former, under treaties. Bernardo Velasco became governor over the Indians dwelling on the Paraná and Uruguay rivers, subject only to the authority of the home government. In 1806 he also became governor of Paraguay, subordinate to the viceroy of Buenos Aires, and held the office, highly respected and esteemed, at the time Paraguay declared her independence. The capitanía-general of Buenos Aires was erected into a viceroyalty in 1776. The last viceroy, Liniers, who had recognized the dynasty set up by Napoleon in Spain, was deposed by the supporters of Fernando VII, and Cisneros was placed at the head of the government on the 19th of July, 1809. A council created on the 25th of May, 1810, with Cisneros' assent, became the provisional government for the province of the Rio de la Plata. Mariano Morino, its secretary, was the most prominent member. The Spanish party wanted Cisneros to be the president of the provisional government, but failing in this he retired to Montevideo. A congress assembled at Buenos Aires in January, 1813, made Posadas dictator. Montevideo surrendered to the American patriots in 1814. After a protracted war between independents and royalists, a popular convention assembled at Tucumán, March 25, 1816, promulgated a constitution under which a republican government was organized, with Buenos Aires as the seat of government. The other component parts of the late viceroyalty refused recognition to that government, Charcas, later known as Bolivia, Uruguay, and Paraguay forming separate republican governments. The defeats sustained by the Spanish forces at Chacabuco in 1817, and at Maypú in 1818, put an end to Spain's domination over the Plata region. The several countries which formed the viceroyalty of Buenos Aires have had many vicissitudes, but finally organized themselves into four republics.

The first president of the government established at Buenos Aires was named Payridón. The Argentine republic became constituted in January, 1825, and her first president was Rivadavia, who held the office until 1827, when he was forced to resign in July; his successors were Lopez and Dorrego; the latter was defeated, made prisoner, and shot in 1828 by Lavalle, who on his part was allowed to retain power but a short time, being defeated in 1829 by Juan Manuel Rosas, who made himself governor of Buenos Aires and was clothed with dictatorial powers, which he continued to wield until his tyranny caused him to be deposed, when he escaped to England in 1852. A new constitution for the Argentine confederation was proclaimed on the 31st of May, 1852, and Justo José de Urquiza, chosen provisional director, assumed this office on the 23d of June following. A revolt in September raised Valentin Alsina to the position of governor of Buenos Aires; but he was compelled to resign the governorship soon afterwards into the hands of General Pintos.

Buenos Aires was thus in rebellion. The new constitution framed in 1853, and promulgated on the 1st of May with the hope that Buenos Aires would accept it and rejoin the confederacy, contained the clause that it should be the federal district. The constitution went into effect at the end of the year. Justo José de Urquiza was chosen president for six years from March 5, 1854. But Buenos Aires constituted herself an independent state, with Pastor Obligado as governor. Alsina became governor in 1859, but in October of that year was compelled to resign, and the office went into the hands of Ocampo. Finally the province of Buenos Aires became reunited to the republic on the 11th of November, 1859. Urquiza resigned the presidential office in 1860; his successor was Santiago Derqui. Urquiza became governor of Entre Ríos and Bartolomé Mitre of Buenos Aires. New difficulties broke out between Buenos Aires and the confederation in 1861, and President Derqui fled. Mitre then became provisional president, with the federal capital for the time being in the city of Buenos Aires. At last this province and the confederation were again reunited under the name of República Argentina, of which Bartolomé Mitre was chosen president in October, 1862; his term expired in 1868, and he was quietly succeeded by Domingo Sarmiento for the period of 1868-74; there was an interval of civil war. Nicolás Avellaneda was chosen for the term from October 12th, 1874, to October 12th, 1880, and Mariano Acosta, vice-president; Julio A. Roca, 1880-86; Miguel Juarez Celmán is the present incumbent of the executive office, his term ending October 12, 1892; Cárlos Pellegrini being vice-president of the republic.

Uruguay: This country, after the separation from Spain, was held by Brazil until 1825, when the Uruguayans asserted their independence, and under foreign pressure Brazil recognized it, Manuel Oribe being the chief of the state: Fructuoso Ribera was president 1830, but resigned. The country being in the throes of revolution, Manuel Oribe seized the presidency in 1835, to be hurled from it in 1838 by Ribera. War continued and lasted till 1849, when Oribe was recognized as president; he was, however, deposed in 1845. The disturbances continued between the unitarians and the federalists, with French and English co-operation on the side of Ribera, and with that of Rosas, of Buenos Aires, on behalf of Oribe. Those two nations at last retired from the contest, but this went on with Brazil aiding Ribera, and Rosas cooperating with Oribe. The latter losing his life in January, 1852, Juan Francisco Giro became president of Uruguay in July 1853; Giro fled, and sought refuge on a foreign man-of-war; the government then was placed in charge of a triumvirate, composed of Ribera, Lavalleja, and Venancio Flores; the last named was elected president from March 12, 1854 to March 1, 1856; he was overthrown in 1855 by Luis Lanas, who assumed the executive office. In 1856 Gabriel Antonio Pereira was chosen president; his administration was a prosperous one; Bernardo Prudencio Berro succeeded January 1, 1860; his administration was also of benefit to the country. In consequence of Flores' third revolution, at the end of Berro's term there was no election; the office was then surrendered to the president of the senate, Anastasio C. Aguirre, on March 1, 1864. During a war with Brazil, which was aiding the revolutionist Flores, Aguirre resigned his office and was succeeded by Villalba, who surrendered the government to Flores. Thus did the latter become president, but he was compelled by his own sons to resign on the 15th of February, 1868, and four days later he was assassinated. Lorenzo Battle became president on the 1st of March, 1868; Gorrensero became chief of the state in 1872; José Ellauri was elected president in 1873 and deposed in 1876, Pedro Varela taking his place, to be forced the next year to resign it. L. Latorre was dictator from March 11, 1876, until he was elected president on March 1, 1877; upon his resignation he was succeeded by F. A. Vidal, on March 15, 1880, for the rest of the term, but he was overthrown by Máximo Santos, who assumed the executive office March 1, 1882. He subsequently became the constitutional president. In 1886 he resigned and in the following year went to Europe. Maximo Fages succeeded to the presidential office in November, 1886.

Paraguay: The first government established in Paraguay after she became independent, in 1811, consisted of a governing junta, composed of Fulgencio, Yegros, José Gaspar Rodrigues Francia, Juan Pedro Caballero, the clergyman Bogardin, and Fernando Mora; after a while Francia retired, and Gregorio de la Cerda took his place. But in 1813 Francia was called to the position of director of the junta. This board was suppressed in October, 1813, and the executive authority was vested in two consuls, Francia and the gaucho Yegros. The consulate ceased to exist in October, 1814, and Francia was made dictator for three years; and in 1817 he was appointed dictador perpetuo de Paraguay, which position he held till his death, on the 20th of September, 1840. After

his decease there was civil war, and the country was under a provisional government, composed of Francia's secretary and four generals. Mariano Roque Alonso and Cárlos Antonio Lopez were made consuls by congress, and held the position from 1841 to 1844. The office of consul was abolished in 1844, and Cárlos Antonio Lopez imitating Francia, had the constituteon amended and himself chosen president, first for ten years, then for three years, and next for ten more. He thus held the supreme power from 1841 to 1862, when he died, leaving the executive office to his son, Francisco Solano Lopez, vice-president and commander-in-chief of the forces. The second Lopez without difficulty had himself elected president for life, and in his herculean struggle against the combined powers of Brazil, the Argentine republic, and Uruguay, lost his life at Aquidaban, on the first of March, 1870. The triple alliance ruled the country until a provisional government was organized, composed of C. Laizaga, C. A. Rivarola, and J de la Bodega. On the 25th of November, 1870, a new constitution was promulgated, and the first presidents, in the order named, were Rivarola, Jovellanos, Gil, and Iriarte. Rivarola and Gil were assassinated. Cándido Barreiro was installed as president in 1878; he was succeeded by B. Caballero, appointed president pro tem. in May, 1881. General Escobar was elected president in November, 1886.

Bolivia, before her independence, formed the province of Charcas composed of four intendencias, and was a portion of the viceroyalty of Buenos Aires. After the independence Bolivia formed a part of the republic of Perú, from which she became detached in 1825, and constituted herself an independent nation. She was, however, from 1836–39 a member of a confederation with Perú; this was dissolved in 1839, and Bolivia has been a separate republic ever since.

After upper Perú seceded from the rest of the republic and constituted herself as the republic of Bolivia, Antonio José Sucre was the first president; but in 1828 resigned the position and left the country, his successor being Perez de Urdimenea. Under a modified constitution the mariscal Santa Cruz became president in 1829; he was overthrown for a time by General Blanco, but recovered his position in 1831; he held it for several years, but was finally overthrown, and Velasco became president; the latter's government was overturned, and Ballivian was placed in the executive chair and occupied it till 1848, when a revolution forced him into exile in Valparaiso. Valasco was for a while chief of the state, and Belzú became president toward the end of the year. The next president was Jorge Córdoba, who had not been long in office when he was driven out by a revolution, in September, 1857. The promoter of this revolution was a civilian named José María Linares, who assumed the executive authority in March, 1858, with dictatorial powers. He was overthrown in 1860, and Acha became provisional president in 1861. He held the office until he was defeated by Mariano Melgarejo, in February, 1865. Belzú was president at the capital until Melgarejo arrived. In 1871 Melgarejo was compelled to abandon Bolivia, and went to reside at Lima, where he was murdered in November of the same year. Morales, his successor, was murdered in November, 1872. The last presidents have been Hilarion Daza, 1876, who was deposed and succeeded by the vice-president; N. Campero, 1880; Gregorio Pacheco, 1884; and Aniceto Arce, elected in 1888.

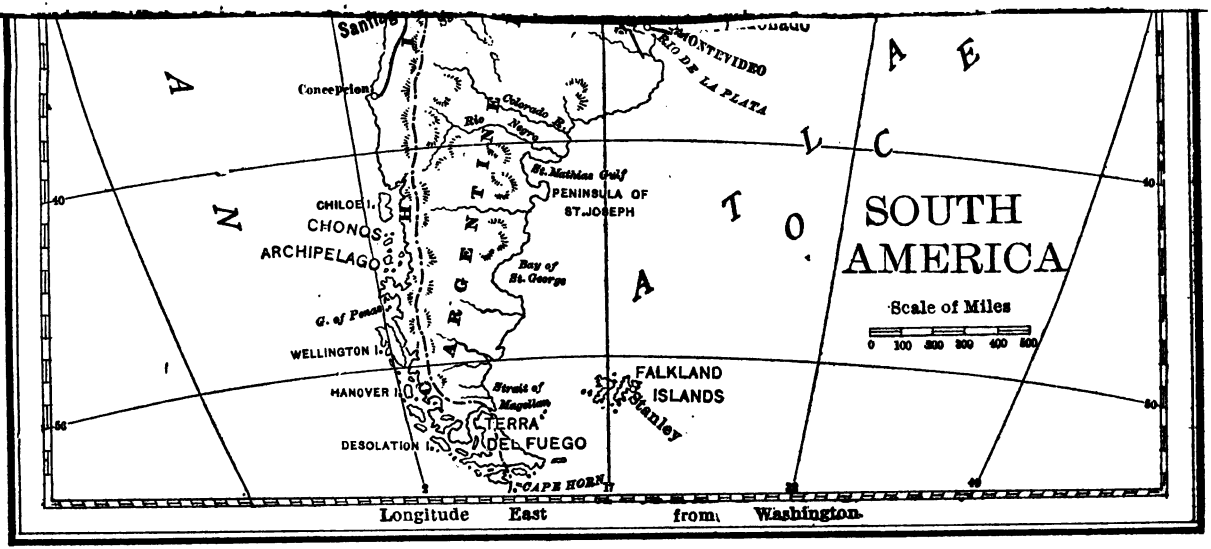
Perú was conquered by Francisco Pizarro, who was the first governor, and held office until his assassination, in June, 1541. Young Almagro, a half-caste son of Diego de Almagro, Pizarro's quondam associate in the conquest of Perú, proclaimed himself governor, but was defeated by Vaca de Castro, the governor sent out by the crown, in September, 1542. The latter retained his position till early in 1544, when he was succeeded by Blasco Nuñez Vela, the first viceroy, who, however, was not recognized by a large portion of the Spaniards. Gonzalo Pizarro, one of the conqueror's brothers, usurped the governorship; Blasco Nuñez was killed in 1546, and the former was generally obeyed as the lawful ruler: but the priest Pedro Gasca came out with the commission

of president, and after a long struggle defeated Pizarro, whom he caused to be publicly beheaded in 1548. The royal authority being thus restored, Gasca placed the government in charge of the audiencia, in January, 1550, and left the country. The next ruler was Viceroy Antonio de Mendoza, who was followed by a long line of viceroys. In 1809 began the great struggle of South America for independence, which lasted till 1824, General La Serna being the last Spanish viceroy of Perú. José de San Martin, with an army of Argentines and Chilians, the latter commanded by O'Higgins, entered Lima, where the independence of Perú was proclaimed in July, 1821. San Martin was made protector of the republic, which office he resigned into the hands of the Peruvian congress in September, 1822.

After a short rule by a committee of three, congress in February, 1823, chose José de la Riva Agüero, the first president of the republic; but the struggle for independence lasted some time longer, for the royalists were victorious at Moquegua and retook Lima. Finally Simon Bolivar and an army of Colombians came to the aid of the Peruvians, and entered Lima on the 1st of September of the same year. Riva Agüero was set aside, and Bolivar appointed protector. The latter defeated the Spaniards at Junin in August, 1824. The last and decisive encounter between royalists and patriots took place on the 9th of December, 1824, the latter under the command of José Antonio Sucre, winning a signal victory. Viceroy La Serna was wounded and taken prisoner. The next day, Canterac, upon whom had devolved the command of the royalists, formally surrendered his army, together with the war material, and all military ports, except the port of Callao. This was also surrendered in 1826, and the independence of Perú, Chili, Bolivia, and the Plata region was accomplished. In 1825 Sucre was invested with supreme power in Alto Perú (Bolivia). Subsequent events in this country I have already related.

Belivar, who was made president for life, had formed the project of a great South American confederation, but this failed, and he was obliged to leave the country in September, 1826, his Colombians following him a few months later. A constitution, patterned after that of the United States of America, was adopted by Perú in 1827.

Under the new constitution General Lamar became the first president in August, 1827; he was deposed in June, 1829. Agustin Gamarra was the next president. During the next 15 years political disturbances prevailed; the ruling men seemed to know no other way of allaying them than by the use of the sword, which only served to increase the confusion. The presidents in those 15 years were: Agustin Gamarra, 1829-33; Luis José Orbegoso, 1834-35; Felipe Santiago Salaverry, 1835-36, who was deposed and executed; Andrés Santa Cruz, 1836-39; Agustin Gamarra, 1839-41; Manuel Menendez, 1841-44. From 1836 to 1839 the Bolivio-Peruvian confederation was in existence, of which Andrés Santa Cruz was the recognized protector. Peace being restored in Perú in 1844 by Ramón Castilla, he was elected president in April, 1845; his predecessor had been Vivanco, who scandalously violated the laws; Castilla defeated and exiled him. After six years' service Castilla surrendered the executive office on the 20th of March, 1851, to his constitutional successor, José Rufino Echenique, but being accused of gross frauds, Castilla deposed him, and became again the chief magistrate from January, 1855 to 1862: in 1860 an unsuccessful attempt was made to murder him. Perú was free from revolutionary troubles from 1858 to 1879. Miguel San Román was president from 1862 to the day of his death, April 3, 1863, when the vice-president, José


Santiago
Concepcion
MONTEVIDEO
RIO DE LA PLATA
Rio Colorado R.
Rio Negro
St. Matthias Gulf
PENINSULA OF ST. JOSEPH
CHILOE I.
CHONOS ARCHIPELAGO
Bay of St. George
G. of Penas
WELLINGTON I.
HANOVER I.
Straits of Magellan
TERRA DEL FUEGO
DESOLATION I.
CAPE HORN
FALKLAND ISLANDS
Stanley
SOUTH AMERICA
Scale of Miles
0 100 200 300 400 500
40
50
60
Longitude East from Washington

Meridian from Greenwich
Cape St Rodne
Cape Mendocino
Cape Blanco
Cape Gregory
Cape Flattery
Cape Orford
Cape Foulweather
Cape Arago
Cape Look out
Cape Lookout
Cape Perpetua
Cape Foulweather
Cape Blanco
Cape Mendocino
Cape St Lucas
Cape Corrientes
Cape Gregory
Cape Flattery
Cape Orford

Antonio Pezet, discharged the executive office until 1865, being then deposed and declared a traitor for undue concessions which he had made, in a treaty with Spain. Canseco superseded Pezet, until Mariano Ignacio Prado was inducted into office as constitutional president; the latter was forced by a revolution to resign his office in January, 1868. José Balta was proclaimed president in July, and in the same month of 1872, during a military émeute, he was foully assassinated. The next president was Manuel Pardo, who went out of office in 1876, and was succeeded by Mariano Ignacio Prado for the term 1876-79. War having been declared against Chili in April, 1879, Nicolás de Piérola was called to the position of chief of the state with dictatorial powers. His efforts in the defense of the country against the Chilian invaders having proved fruitless, Piérola resigned his authority in January, 1881, and abandoned the country. Francisco García Calderón was chief of state from the 12th of March of that year. He was superseded by a provisional government with General Miguel Iglesias at its head in 1883. This government made peace with Chili, and the invading forces after a time retired to their country. A civil war ensued between the followers of Iglesias on one side, and of Andrés Avelino Cáceres on the other; the latter, being victorious, became provisional president. He was subsequently elected constitutional chief magistrate, and was formally inducted into office on the 3d of June, 1886, and is at present at the head of the government.

Chili was conquered by Diego de Almagro, and Pedro Valdivia, although the latter finally fell into the hands of the natives and was put to death. This was in 1559. But the Araucanians were never conquered.

Spanish Chili, extending from the river Biobio northward to Atacama, was divided into 13 provinces; the ruler then styled governor, president, and captain-general, was appointed by the viceroy of Perú. The people of Chili in July, 1810, proclaimed their independence, deposed the Spanish president, and on the 18th of September placed the executive authority in charge of a committee of seven. In 1811, a triumvirate was organized. The Chilian patriots were forced in 1813 to return to their allegiance, and for three years were under the rule of governors Osorio and Pont. The royalists being defeated by patriots from Buenos Aires under José de San Martin at Chacabuco, in 1817, an elective government was established, with San Martin as dictator. A signal defeat of the royalists on the plains of Maipo, the 15th of April, 1818, secured the independence of Chili, though the royalists held the port of Valdivia till 1820. Political disturbances were frequent for a number of years, though the men at the head of national affairs endeavored to avert them. Bernardo O'Higgins succeeded San Martin as director, but in 1823 he was compelled by a popular tumult to relinquish the position. Next a triumvirate was established, which lasted a few weeks, and then General Freire became director, and controlled affairs during three years, after which he retired. The country knew no peace for many years. From 1826 to 1830 it was under six different directors and one triumvirate. During General Pinto's administration, a constitution was promulgated, which was not satisfactory to all parties, and civil war broke out. Finally General Prieto became chief magistrate, in 1831, and the constitution was amended and promulgated on May 25, 1833. Since then Chili has had a stable government.

Prieto was the head of the government for the period of ten years, and was succeeded by Manuel Bulnes, elected in 1841, who ruled ten years, and in 1851 surrendered the presidential office to his constitutional successor, Manuel

Montt. The latter also held it for two terms, 1851-1861; José María Perez, 1861-71; Federico Errázuriz, 1871-76; Aníbal Pinto, 1876-81; Domingo Santa María, 1881-86; José Manuel Balmaceda, from September 18, 1886, the present incumbent.

The island of Santo Domingo, otherwise known as La Española or Hispaniola, was discovered by Columbus, and held as an appendage of the Spanish crown until about 1625. French buccaneers settled on the island of Tortuga, and on the coast of the mainland, and afterward applied for the protection of the French king, who sent them a governor. The Spanish crown ceded to France the western part of the island in 1697, though the boundaries were not defined till 1777. It is well known that the overwhelming black and colored population of the French section known as Hayti rose in arms in 1789 to throw off the yoke of France. The Spanish portion having been ceded by Spain to France in 1795, the victorious negroes and mulattoes of Hayti soon made themselves masters of it. Toussaint l' Ouverture became ruler of the country in 1794. Napoleon despatched an army under Leclerc in 1802 to bring the inhabitants under subjection; a treaty of peace was concluded between the belligerents, and in the midst of peace Toussaint was treacherously seized at midnight by a French force, and conveyed as a prisoner to France, where he died in April, 1803. The enraged blacks on seeing the treachery practised on their leader, renewed hostilities, which were continued until after Leclerc's death, when the French, decimated by the effects of the climate, surrendered to an English squadron. The Haytians formally declared their independence on January 1, 1804. They held the eastern part of the island till 1814, when it was restored to Spain under the treaty of Paris. But the inhabitants threw off their dependence in November, 1821, and erected an independent republic. The latter portion was afterward conquered by the Haytians, but the connection was again severed in 1842. The Haytians made still another attempt to annex the Spanish portion to their territory, but failed, and since then the two sections have continued independent of each other.

Dessalines, in October, 1804, assumed the title of emperor under the name of Jean Jacques I, but on the 17th of October, 1806, was assassinated. Hayti was now divided among several chieftains, the principal ones being Henri Christophe in the northwest, and Pétion in the southwest. Christophe was made chief magistrate for life, but caused himself to be crowned with the title of Henri I, and with the kingly office hereditary in his family. Pétion was president of his section till his death, in March, 1818, much lamented by his fellow citizens. Christophe by his despotic acts enraged the people, who revolted, and he killed himself in October 1820. Boyer, now uniting the two sections of the west, became president, and retained his position until 1842, when he was deposed and fled. In the following years the supreme authority in Hayti was successively held by Hérard, Pierrot, and Riché, till 1847. In this year Faustin Soulouque was chosen president. He was one of the order of vaudoux, ignorant and superstitous, but full of ambition. In August, 1849, he made himself emperor under the name of Faustin I, and was crowned in the following year. In December 1858 he was deposed and a republic was erected, with Fabre Geffrard as president. Geffrard was forced to resign his position in February, 1867, and fled to Jamaica, with a considerable amount of money. A triumvirate was then formed, with Nissage-Saget, Chevalier, and Salnave, but in June the last named was raised to the presidency. A revolution broke out in 1868, and in 1870 Salnave was captured, and by order of Nissage-Saget, tried by court-martial for treason and bloodshed, sentenced to death, and shot. Nissage-Saget was named president on May 29, 1870. Boisron-Canal became

his successor on July 17, 1876. General Salomon was chosen October 28, 1879, and managed to maintain himself in power during the succeeding years. He was reëlected for seven years from May 1, 1887, but a bloody and disastrous revolution hurled him from his seat in August, 1888, and he succeeded in escaping from the island. He went to reside in France. Boisrond-Canal, the ex-president, became the head of a provisional government. The chambers subsequently elected Legitime president.

In the Dominican republic, constituted in 1844, Pedro Santana became the first president. He resigned the office in 1848, and Jimenes was called to fill it. Being accused of the treasonable intention of reannexing the republic to Hayti, he was overthrown, and Santana ruled as dictator until Buenaventura Baez was chosen president, in the autumn of 1849. Santana was his successor in 1853, and Baez was again president in 1856; in 1858 he was forced to flee, Santana becoming the ruler. In 1861 Santana and his friends invited Spain to take control, and Spanish troops took possession of the territory. For this action Santana and others received high honors, military and otherwise, and probably also money. The Spaniards never enjoyed peace after 1863; after two years of fighting they found the uselessness of any further effort to remain, and withdrew the remnants of their troops. The independence of the island was at last recognized by the Spanish córtes, on the 3d of March, 1865. Anarchy prevailed after the Spaniards left. Buenaventura Baez was again summoned to the helm toward the end of 1865. Peace was of short duration; Baez retired and a triumvirate was formed, with Pimentel, Garcia, and Luperón. José Maria Cabral was elected president. Baez was again president in 1868, and continued in power until relieved by Ignacio Gonzales, chosen to succeed him in December, 1873. I find that the following persons have in late years been presidents of the republic: Ulises Heureaux, July 20, 1882; Gregorio Bellini, who resigned and was succeeded by Alejandro Wos y Vigil, in 1885. Ulises Heureaux occupied the presidential chair in 1887.

Cuba and Porto Rico were discovered by Columbus. The first governor of Cuba was Diego Velazquez, appointed by Diego Columbus, and of Porto Rico, Juan Ponce de Leon. Both islands have remained appendages of the Spanish crown to the present time, being ruled as colonies by a long line of governors and captains-general appointed by the supreme government of the mother country. For some years past they have been recognized as provinces of the Spanish monarchy, with representation in the Spanish córtes. The present governor-general of Cuba is General Salamanca; that of Porto Rico, Gen. Juan Contreras.

Fifty-nine persons have held the position of governor of the Bermudas since 1612. On two occasions—in 1644 and 1645—the executive authority was in charge of a triumvirate. In the absence of the governor, the senior military officer administers the government. Lieutenant-general Thomas Lionel John Gallwey has been governor and commander-in-chief since 1882, with a salary of about $14,730 a year.

Over the Bahamas forty-two persons have ruled since 1673, including a few who held the executive office ad interim with the title of lieutenant-governor. H. A. Blake assumed the governorship in 1884.

I have given elsewhere an account of the changes that occurred in the government of British Honduras from the earliest days of the occupation of the country by English settlers. Seventeen persons ruled under the commission of superintendent, thirteen since the ruler was made a lieutenant-governor, from 1862 to 1884, though during this time the incumbent was occasionally a simple administrator. The colony has been since 1884 under a governor, who is also commander-in-chief, and the position has been held by Roger T. Goldsworthy, with a salary of about $9,000 a year.

From and after the year 1655 fifty-four persons have ruled in Jamaica under commissions from the British crown, inclusive of those who acted only provisionally, either as lieutenant-governor or mere administrators. The title of the ruler is captain-general and governor-in-chief. General Sir Henry Wylie Norman, grand cross of the Bath, and of St. Michael and St. George, has been the incumbent since October, 1883. Henry Blake was named in 1888.

The chief officer of the Leeward confederacy is called governor, and he has a salary of $15,000 a year. Since the organization of the confederacy ten persons have held the office of governor, and he is ex-officio governor of the island of Antigua. The present incumbent is Viscount Gormanston.

Barbuda, an island dependent of Antigua, is ruled by a magistrate. St. Kitts and Nevis were from 1834 to 1870 under a lieutenant-governor, though at times the ruler was called president, and at others administrator. Eighteen persons held the executive office. From the year 1872 to the present time the ruler has been a president, and five persons have filled the position. Charles Monroe Eldridge has been president since 1885. The president of Montserrat is John Spencer Churchill, and of Dominica, George Ruthven Le Hunte. Anguilla's local ruler is a presiding magistrate named James Louis Lake, whose salary is $1,100 a year.

One-hundred and forty-two persons have ruled the island of Barbados since it became a British colony in 1625, including those who acted provisionally, either as deputy-governors, lieutenant-governors, or presidents. From 1666 to 1667 the governorship was filled by a committee of three. Barbados was constituted a separate government in 1885, and her governor from that time has been Sir Charles C. Lees, knight commander of St. Michael and St. George, with a salary of $15,000 a year.

The chief executive officer of the confederacy of the Windward islands is called governor-in-chief and commander-in-chief, and his salary is $10,000 a year. The present incumbent is Walter J. Sendall. The governor's residence is in the island of Grenada. From 1764 to the present time forty-four persons have held the executive office in Grenada under different titles, either as governor, lieutenant-governor, vice-govenor, president, or administrator.

St. Vincent, one of the Windward islands, is ruled by a lieutenant-governor, with $5000 a year. From 1776 to 1833 the island was a separate government and had its own governor, and seven persons held the office in that period. Since 1833 it has been under a lieutenant-governor, which office has been filled by 15 persons; to be more correct, 11, and four temporary administrators. The local rulers of the other two islands of the confederacy are administrators; St. Lucia's being Edward Laborde, and Tobago's, Robert Baxter Llewelyn.

During Spanish domination in the island of Trinidad from October 11, 1735, to February 18, 1797, thirteen persons ruled as governors. After the last named year to the present time, seventy-six persons have filled the executive office, either under the name of governor, commissioner, or administrator. The present rank is that of governor, and the incumbent since 1826 is Sir W. Robinson, with a salary of $20,000 a year.

The chief officer of British Guiana is called governor, and his salary is $25,000 a year. Twenty-four persons have ruled the colony, including those who have held the executive office provisionally. Sir Henry T. Irving, knight commander of the order of

St. Michael and St. George, was the governor from September, 1884; Charles Bruce, companion of St. Michael and St. George, holds the position of lieutenant-governor, and government secretary, with a salary of $7,500 a year.

The governors of the French possessions in 1887 were, O. Couturier, of Guadaloupe; Leonce Laugier, of Martinique; and M. A. A. Huart, of French Guiana.

LAWS.

The attention of foreigners residing, or intending to reside in Mexico, is called to the following points of law, with which it is to their interest to be conversant:

The civil law binding upon all Mexicans, and upon others enjoying the privileges of Mexican citizens, is equally binding upon aliens respecting the immovable property possessed by them in the republic. Change of nationality has no retroactive effect. Aliens residing in Mexico may sue Mexicans or foreigners in the Mexican courts for obligations contracted in or out of the republic. The same privilege is allowed aliens not residing in Mexican territory. The civil status of a foreigner may be that of a transient, or of a resident; this is determined by length of residence. In cases not here set forth, he is looked upon as a Mexican. A foreigner who is in the country as a mere visitor, and not *cum animo manendi* is a *transeunte* (transient). Such transeunte cannot be the guardian of a minor's person or estate; nor can he acquire any real estate whatever. He may be sued before the courts, and his goods found in the republic may be attached, and applied to the payment of his just debts, whether these debts have been contracted in or out of the country.

The domicile is where the person has resided upward of six months, or the place where he usually transacts his business; in default of either, then wheresoever he may be found, is presumed to be his domicile. The domicile of a married woman, who is not legally separated from her husband, is that of her husband. The domicile is therefore personal, of a business nature, or conventional. A person may possess the three kinds of domicile at the same time. The domicile in the country is not lost while a domicile has not been acquired in another country, unless the domiciled party advises the local authority of his former residence of his having *de facto* changed it. Foreigners domiciled and residing in the republic may acquire and possess real estate and mines. No alien may, however, without the express authorization of the president of the republic, acquire real estate in any frontier or territory within 20 leagues of the boundary line; nor any property within five leagues of the coast. Any alien wishing to obtain such privilege must apply to the department of fomento, accompanying his application with a report of the government of the respective state or territory.

An alien owning real estate loses the right of holding it in any one of the following cases: 1st. By absenting himself from the county, together with his family, for more than two years, without permission of the Mexican government. 2d. By becoming a resident abroad, though he may have in Mexico a representative to look after the property. 3d. By conveying the property, through inheritance or any other title to a person not a resident of the republic. The alien thus situated must sell the property within two years from the date of his absenting himself; if he fails to do it, the local authorities shall make the sale for his account; if there be an informer, one-tenth of the value will be retained for the informer. Excepted from this rule is the foreign partner of a company that has discovered or restored an abandoned mine; he can retain his interest through his resident copartners.

Aliens are bound to respect and abide by the institutions of the country. They must strictly observe the general laws of the republic, and those of the states, federal district, and territory of Lower California concerning them; they must obey the authorities, and submit to the decrees of the courts. On the other hand, they have a right to the protection of the laws, and of the authorities, like other inhabitants. Aliens cannot hold public office, either civil, judicial, or military; not even a municipal one clothed with authority, jurisdiction, or deliberative vote. They do not possess the rights of petition, association, or participation in the internal politics of the country. They are bound never to violate their neutrality to the detriment of the republic, or of

its government, in civil or foreign war. They are exempt from military service in times of peace or war. They are equally exempt from all taxation merely personal, ordinary, or extraordinary of any kind whatever.

A pernicious alien may be expelled from the country by order of the president of the republic. The following offenses will be ruled under this category, whether they were committed in or out of the republic, if the offenders are found therein or their extradition is obtained, viz.: crimes against the independence of the republic, the integrity of its territory, its form of government, peace, internal and external safety; or against the personnel of its administration; counterfeiting public seals, current Mexican coins, or paper money in circulation, bonds, titles and other documents of public credit of the nation, federal district or territory of Lower California, or the notes of any bank existing in the republic. Continuous crimes, previously committed abroad and followed up in the republic, are punishable according to the laws of the latter, even though the offenders be aliens. Crimes committed in a foreign territory by a Mexican against foreigners, or by a foreigner against Mexicans, may be punished in the republic in accordance with its laws, under the following circumstances: 1st, The accused being in the republic; 2d, if there is a complaint preferred by a legitimate party; 3d, if the culprit has not been definitively tried at the place where the offense was committed, or acquitted, pardoned, or amnestied; 4th, that the act is a crime, both in the country where committed and in Mexico; 5th, and that under the laws of the latter the offence is amenable to a more severe penalty than incarceration.

Counterfeiting foreign coins which have legal circulation in the republic is punishable under its laws, the same as if it was Mexican money. Crimes committed abroad by foreigners against foreigners are not punishable in Mexico, but the offenders may be declared to be pernicious, and expelled as such from the country. The following crimes are dealt with in the same manner as if they were committed on Mexican territory: At sea, on Mexican vessels, whether public or private; on a Mexican war vessel, wheresoever she may be; on a Mexican merchant vessel, in a foreign port or in foreign waters, if the offence has not been tried in the nation to which the port or waters belong.

Any foreigner, whatever may be his origin, condition, or quality, may become naturalized by complying with the naturalization laws. The only requirement is that the petitioner prove that he has a profession or useful industry to provide him with an honest livelihood. No subject of a nation at war with Mexico can be naturalized. The following are also deprived of the privilege: Any person reputed, or judicially proven in any country to have been a pirate, slave-dealer, incendiary, poisoner, parricide, counterfeiter of coin, or forger of bank-notes or other paper money.

The law recognizes as a Mexican citizen any foreigner who has acquired real estate in the republic or had a child born therein, unless he explicitly makes known his determination to preserve his foreign nationality. Naturalization does not confer on a foreign born person the privilege of aspiring to the following offices: President of the republic, magistrate, procurator-general, and fiscal of the supreme court of the nation; governor in most of the states; notary public in the federal district; and other political, administrative, and judicial offices of the same states, federal district, and territory of Lower California.

Matriculation of foreigners consists in inscribing their names and nationality in a certain book in the department of foreign relations, or if outside of the capital, at the office of a state governor, etc. This matriculation proves the national character of the foreigner and entitles him to especial privileges and duties: 1st, to invoke the treaties and conditions existing between his country and Mexico; 2d, to seek the protection of his own nationality to demand the benefits of reciprocity. The legal status of a matriculated alien is changed by his own renunciation or by war.

Rights of foreigners under international law as recognised in Mexico:

Art. 1. Every nation has the right to keep out of its territory, from political or judicial causes, a certain class of aliens.

Art. 2. Every nation has the right of expelling, for reasons of public order, foreigners temporarily residing in its territory.

Art. 3. Every nation has the right to establish its own terms, granting or withdrawing citizenship.

Art. 4. When a foreigner is forbidden by a government to enter its territory, or is expelled therefrom, without good cause, the nation of which he is a citizen or subject has the right to demand redress for such violation of international law.

Art. 5. Every nation has the right to determine if foreigners may, and under what terms, acquire real estate, or exercise their professions in its territory.

Art. 6. No nation is obliged to grant to foreigners privileges or personal rights which are incompatible with its constitution or fundamental laws; but the rights of foreign sovereignties and their representatives are excepted.

Art. 7. Foreigners can leave the Mexican territory whenever they please. The property and goods of a foreigner he himself or his representative is at liberty to take out of the country, and the government of the locality where he may be has no right to retain any portion of them, or to levy any especial taxation on them.

Under the laws of Mexico foreigners who are in the republic enjoy the same civil rights as Mexicans, and may engage in such commercial transactions as are stipulated in the treaties with their respective nations, when they have become matriculated in accordance with law, except sea-port trade and freightage (el comercio de escala y cabotaje) in the ports of the republic, which may only be carried on in national vessels. Mexico has treaties of amity, commerce, and navigation with nearly all the nations of Europe and America.

Under the laws of Mexico companies of two or more may be formed. There are three classes of companies, to wit: *compañía regular colectiva*, where all the partners participate, in the proportion stipulated in their contract, in the same rights and obligations. *Compañía en comandita;* where one or more persons organize with the object of associated operations, under the exclusive direction of other partners, who manage the affairs of the company under their individual names. *Compañía anónima:* where a number of persons create a fund with a specified number of shares, to be employed in carrying out one or more objects; the business being expressed in the company's name, such as railroads, telegraphs, insurance, banking, etc., the management of which is placed in charge of certain officers. A company may be at the same time *colectiva* and *en comandita*.

Commercial companies are controlled by the code of commerce; civil associations by the civil code; but their organization and charter may determine whether they shall be controlled by one or the other code. All stock companies (sociedades anónimas), and those which the commercial code holds to be of limited liability, are subject to the law passed on the 10th of April, 1888.

Every merchant, whether native or foreign, transacting mercantile business, must keep his books in the Spanish language. A violation of this rule is punishable with a heavy fine.

Bills of exchange. In Mexico, persons to whom bills have been presented for acceptance must accept or reject, and return them within 24 hours, when this can possibly be done—the time being reckoned from the moment of presentation; if the bills are retained longer the law presumes that they have been accepted, and the acceptors are bound thereby. A person who accepts a bill of exchange under protest for the honor of the signature thereto, acquires no right of action against the endorsers. By acceptance the acceptor becomes the chief debtor of the bill, but he is not bound by his acceptance of a bill that is afterward proved to be a forgery. A protest must be entered on the register of the notary before whom the protest was executed. There is no limit of time for the presentation of a bill of exchange, but usage has made the rule of Domingues prevail, viz.: the time intervening between two mails from the place where the bill was drawn to the place where it is to be paid. All the endorsers are jointly and severally liable for the maker and acceptor.

Under the civil code of Mexico acts and agreements made to the injury of third parties may be rescinded. Acts and contracts made under false pretenses by the contracting parties defrauding the rights of a third party, may be rescinded or made null at any time on the petition of the injured party. A contract is said to be under false pretenses where the parties declare falsely that a thing had taken place which had not, or had been agreed upon when this was not the case.

Under Mexican laws bankruptcy is not recognised; debtors are not discharged. The only way open to a debtor is to compromise with his creditors. All his property, save that portion which is exempt by law, may be seized to satisfy his debts, and all property he may acquire later is also subject to seizure for the same purpose. Assignment for the benefit of creditors is made of the debtor's property, which is called *gradation of creditors*.

Patents. The Mexican government issues patents; those for invention are issued for ten years, and those for improvement for only six years. Any person introducing a branch of industry which in the judgment of the general congress is of great importance, may obtain a patent or exclusive privilege therefor, by applying to congress through the medium of the government. The patent law bears date of May 7, 1832.

Under a recent law coal, iron, and quicksilver mines, and their products, are

made free for 50 years, from all taxes and duties. No fees are collectable for denouncements and possession necessary for acquisition of mines, and mining properties and reduction works, nor on the organization of mining companies, or on titles, or on shares issued by them. The president of the republic is authorized, for ten years, to enter into contracts, granting especial privileges and ample concessions for mines and mining lands (not to the injury of the interests of a third party) to companies who will guarantee the investment of capital corresponding to the extent of the lands or zone granted for their working. The minimum capital of such companies is $200,000.

Under the mining code of the Mexican republic issued on the 22d of November, 1884, and which went into operation on the 1st of January, 1885, mines and mineral beds are immovable property distinct from the soil in which, or under the surface of which they may be found, even though both should belong to the same owner. The law grants to private persons the property in mines for an unlimited time, provided they are worked and operated in conformity with the provisions of the mining code, and of the regulations connected therewith intended for the preservation of the mines and the security of the workmen.

Persons capable of acquiring real estate in the republic under the Mexican laws, may acquire mines, placers, reduction-works, etc. Foreigners may acquire mining property, but they must submit, as Mexicans, to the requirements of this law, and to such others as may hereafter be issued concerning the mining industry. Mining property legally acquired may be freely transferred, like any other real property; it may be forfeited for the following reasons: when from want of supports, strengthening, or general bad condition, the lives of the workmen are imperilled, or when the works indispensable for the survey and working of the deposit (criadero), such as shafts, pits, adits, general passages (cañones generales), works of profit (labores de disfrute), etc., are allowed to go to decay; when the works (labores de trabajo) are not provided with the proper ventilation; when the waters which impede the working of the mine have not been removed for 25 consecutive or interrupted weeks in one year preceding the day of a denouncement, or within a less time.

The following are the exclusive property of the owner of the soil, and he can therefore work and avail himself thereof without the necessity of a denouncement or adjudication: beds of coal (carbón de piedra) of every kind; rocks of the earth and materials of the soil, such as calcareous (calizas), slate (pizarras), porphyry (pórfidos), basalt, building stone, earths, clays, sands, and other analogous substances; substances found in beds, such as iron, tin, and other minerals; (de acarreo) the salt existing on the surface, the pure and salt waters, superficial or subterraneous, petroleum and gaseous springs, or thermal or medicinal waters. The owner of the land is, however, subject to the provisions and regulations of the police; and, where excavations are made, to the provisions of the mining code relating to the preservation of the mines and security of the workmen. The code applies to mines and deposits (criaderos) of inorganic substances, whether in veins, sheets, or beds (mantos), or in masses of any form, the composition whereof is distinct from the rocks of the earth, such as gold, silver, copper, iron, magnesia, lead, quicksilver, tin, antimony, zinc, sulphur, rock-salt (salgema), and other analogous substances calling for the services of miners; beds (placeres) of gold and of platina, with the metals accompanying them, and those of precious stones employed in jewelry; the reduction-works (haciendas de beneficio) and sites on which to construct them; and the use of waters necessary for men, beasts, machinery, etc. The working of mines and placers, the establishment and the operating of reduction-works, and the enjoyment of waters, all of which, as aforesaid, form the objects of the mining code, are declared by it to be of public utility.

Mining grounds (fundos mineros) and the sites for reduction-works may be denounced and acquired in any place within the republic, whether they be situated in vacant lands, or public or private property, by previous indemnification, if the latter is in question as to the area occupied. The possessor of a mine is entitled to the extent necessary to open the shafts (bocaminas), for offices, habitations, stores, washing-places (lavaderos), dams, acqueducts, and roads, by previous indemnification for the surface occupied, etc. The superficial ground (fundo superficial) within the limits of the pertenencias of the mines or placers, as well as the immediate grounds, are subject to the service of passage of the workmen, wagons, and animals needed for operating the mine, and to the use of water, etc.

A denouncement (denuncio) may be made for the following reasons: 1st, discovery; 2d, abandonment; and 3d, forfeiture or extinction of the right of a

prior owner. A discovery may be: 1st, of a new mine; 2d, of a new deposit (criadero) in a known mining place (mineral); and 3d, of a new mine in a known criadero and mineral. The discoverer of a new mining place (mineral) is entitled in the first case to a concession of three pertenencias following on the principal vein or deposit (criadero), and also to one more on the other veins or deposits (criaderos) of the same site or mining place (mineral); in the second case, the discoverer is entitled to two pertenencias contiguous; and in the third case, to one pertenencia only. Restorers of ancient mining places (minerales) are considered as discoverers. If the discovery be of placers, horizontal ledges or beds (mantos ó capas), the discoverer will be entitled to three pertenencias, and those who afterward denounce in the same deposit (criadero) to only one pertenencia. If, in any of the above cases, the denouncer, discoverer, or restorer should be a company, the latter will be entitled only to a grant of four pertenencias. The law is very explicit on many other points, and sets forth the manner of applying for mines, and of granting and giving possession.

A law promulgated on the 7th of July, 1886, contains among its provisions, the following clauses, which are evidently intended to favor the introduction of foreign capital in Mexico. For the acquisition of waste and government lands, real estate, and ships, foreigners are not required to reside in the republic; but they are subject to the restrictions imposed by the laws now in force; with the understanding that all leases of real estate made to foreigners shall be considered as sales if they are for a longer term than ten years. The laws requiring the registration of foreigners were repealed. The department of foreign affairs alone can issue certificates of nationality to foreigners soliciting the same. These certificates constitute a legal presumption of foreign citizenship; but proofs to the contrary are not barred. The definite proof of determined nationality will be produced to courts of competent jurisdiction, in the manner established by the laws, or treaties. The republic has treaties of friendship with all the nations of Europe and America, and with several of them also treaties for the extradition of criminals.

The republic of Costa Rica completed, in 1887, the codification of her civil laws, and of the procedure in civil cases. Among other organic laws issued by the government are those to govern prosecuting officers, the judiciary, notaries public, recording of deeds and other public instruments, and civil registration.

The registration of the civil state is kept in a central register book, and in auxiliary registers placed in charge of the governors in the central cantons of provinces and comarcas, and of the jefes politicos in the minor cantons; the registration of Costa Ricans sojourning abroad is entrusted to the consular officers of the republic. In each one of the provinces of San José, Cartago, Heredia, Alajuela, and Guanacaste, and of the comarcas of Puntarenas and Limón, three series of books are kept, viz.: one of births, one of marriages, and one of deaths occurring within the province or comarca. The keepers of auxiliary registers are required, to have an especial book on which they must make a record of every marriage made by them, and two other books, one for entering the births reported to them, and the other of receipts for the certificates of catholic marriages contracted within their district. The law requires that the birth of a child be reported to the respective register within 40 days, accompanying the names of the parents, of the physician or midwife that was in attendance at the birth, or in default of either, of the person that was present. In the case of infants found abandoned, the finder is to make the report.

The ceremony of marriage may be performed by the registrar, by the catholic church, or by the foreign diplomatic or consular officers residing in the republic, who, pursuant to treaties, are authorized to do so. All such marriages are to be recorded. Marriages contracted abroad may be recorded at the request of the interested parties on their producing satisfactory evidence of the marriage. Parish priests are bound to send to the registration offices monthly lists of all the baptisms and marriages they have performed.

A matter of interest to foreigners having business relations in Costa Rica is that of bankruptcy. The law says that a person is not legally insolvent until he has been judicially declared to be so. The state and the municipalities can never be declared to be in a state of insolvency. Whenever, by the statement of a debtor, or the solicitation of a creditor, it is made to appear that the assets of the former are insufficient to cover his liabilities, a decree of insolvency

will be in order, even if there be only one creditor; but if there should be two or more creditors, then there must be a meeting of creditors. The insolvency is presumed from the fact of the debtor not producing, nor the register of property showing, sufficient effects to apply a writ of attachment to. There are, for legal effects, three distinct classes of insolvency: 1st, the excusable; 2d, the culpable; and 3d, the fraudulent. The insolvents of the first class are those who, owing to misfortune or unavoidable causes, have suffered such a decrease in their capital as to be unable to wholly or partially pay their debts. In the second class are comprised such cases as do not come within the first or third class. To the third class belong those persons who, being aware of their insolvency, do some act to better the condition of one or more of their creditors to the injury of other creditors; those who in any way, prior to or after being legally insolvent, attempt to defraud their creditors; those who do not reasonably explain what became of the money or effects disposed of in the three months preceding the declaration of insolvency; those who have unduly used for their own purposes funds, effects, or property belonging to other parties which had been entrusted to their custody or care; those who have against them a demand or demands proceeding from embezzlement or other fraudulent act. Any person who aided or abetted, directly or indirectly, in the commission of any of the above fraudulent acts, will be dealt with as an accomplice. Such accomplices must return the property they may have fraudently come into possession of, and pay damages also, aside from the punishment they may be amenable to under the penal code. The declaration of insolvency involves the imprisonment of insolvent unless he gives sufficient bail, equivalent to 25 per cent of the amount of liabilities, and this will not be discharged until the insolvency shall have been declared excusable. During such time as the debtor is in prison he must be allowed monthly in advance out of the property, a sufficient sum for his support, not over $60; nor less than $15. The insolvency of merchants is subject to the provisions of the code of commerce.

From the moment the declaration of insolvency has been legally made, all interest on credits cease against the property of the debtor, except on such as may be secured by mortgage or otherwise; and even these creditors cannot demand the running interest beyond the product of the thing upon which the guarantee is constituted. All the liabilities of the insolvent cease from the moment the insolvency is declared. With respect to bills of exchange, or notes payable to order, the insolvent, if he accepted, or issued the non-accepted bill, must, before maturity, give security for its being paid; but if he be a mere endorser, the holder of the bill or note cannot demand its payment, nor security for its payment, before it has become due. Bills of exchange, or notes payable, and other indorsable paper, which, not in account current, were sent to the bankrupt to be collected, or to have them applied to some purpose, if not already collected, may be recovered by their owner.

All the property of a person is subject to the payment of his debts. If the property is not sufficient to pay all the debts, these must be paid pro rata, unless in the case of a creditor having a legal right to be preferred. However, out of the property acquired by a debtor in Costa Rica, must not be paid debts incurred abroad, prior to his settlement in the country, until those he contracted subsequently have been covered. The following effects are exempt from attachment: two thirds of the salary or wages of a public or private employé; the retired pay or pension allowed by the state; the bed and wearing apparel of the debtor, of his wife, and of his children living with him and at his expense; the books, machinery, and other necessary and useful effects of the debtor's profession that he may select, not exceeding the value of $200. The utensils or tools of an artisan or farmer that he requires for his personal work and that of the children he supports; the uniform and military equipments of the debtor's rank; the articles of food existing in possession of the debtor, sufficient for his family's support during one month; rights of a purely personal nature, such as those of use and habitation; and any other effects that the debtor may have gratuitously acquired under the condition that they may not be attached for debt, save the improvements resulting from his own industry.

Property in movables and immovables is transmitted, as regards the contracting parties, by the mere fact of the agreement which had for its object to transmit it, independently of the inscription in the record office, and of the tradition. Ownership of movables is fully acquired as regards a third party, by the tradition or delivery made under a lawful title; but a person who has lost or been robbed of a movable may, within three years from the time of the loss or robbery, claim its return, unless the present possessor of the lost or

stolen thing had purchased it with the usual formalities at a fair or public sale, or from a dealer in similar goods; in such cases the original owner cannot recover it without paying the possessor the amount it cost him. The tradition in law takes effect from the moment that the owner delivers, and the acquirer takes possession of the thing. The tradition of right or title is effected by the delivery of the documents which establish the title. But the tradition of a ceded claim has no legal effect, respecting the debtor, until the latter has been notified of the cession, nor, respecting a third party, until the date of the cession has been well established, unless the claim or credit be of the class that the law permits to be owed to the bearer of the title, or to be transmitted by a mere indorsement. Other ways of acquiring title are occupation, accession, inheritance or bequest, and prescription. By occupation may be acquired the ownership of movables that belong to no one. Immovables which have not become private property, belong to the state. The ownership of vessels, and their cargoes, and of flotsam and jetsam is regulated by the code of commerce.

Copartnerships or companies. Each copartner must contribute a portion of capital; the latter may consist of money, credits, or goods, or industry, service, or labor having a money value. All associations by universal title are prohibited; likewise associations of profits by universal title. However, all kinds of property may be contributed ad libitum by specifying them. A majority of partners, unless there is a stipulation to the contrary, has no power to alter or amend the terms of agreement, nor engage in any business outside of that determined in the contract of copartnership, without the unanimous consent of all the partners. An industrial partner is entitled to one vote. The managing partner or partners are bound to adhere strictly to their instructions: where the latter are silent, it must be understood that the managers have no right to contract obligations in the name of the association, nor make acquisitions or transfers, outside of those embraced in its ordinary line of business. Although the partners may be legally or conventionally deprived of all interference in the administration of the company's affairs, they still have the right to inquire into the condition of the same, and to examine the books, vouchers, accounts, and to make such reclamations as they may deem expedient. If the administration has not been entrusted to any one of the partners, it will be understood that each one has been authorized by the others to manage with the powers granted by law.

Article 49:—Marriage. Betrothals have no civil effect. Article 50:—Marriage is for life, and has for its objects procreation and mutual aid. Article 51:—All conditions contrary to the essential purposes of marriage are null. Article 52:—Polygamy is forbidden. Article 53:—There is no marriage without the consent of the contracting parties, made manifest in a legal and express manner. Article 54:—It is the province of the civil authority to have cognizance in all demands for divorce or separation of bed and board, or for dissolution of marriage, or any other matter relating to the matrimonial tie. Article 55:—The following marriages are declared to be legally impossible: 1. That of a person who is bound by a former marriage. 2. Between ascendants or descendants by consanguinity, or legitimate or natural affinity. 3. Between brothers and sisters, whether legitimate or not. 4. Between the slayer of one consort and the surviving one. 5. Between a party condemned for adultery and the accomplice. Article 56:—Marriage may be annulled: 1. Where one or both of the parties gave consent through error, violence or fear. 2. Where either of the parties was insane or of mental incapacity at the time the marriage took place. 3. Of persons under 15 years of age. 4. When the parties, or either of them, are incapacitated by absolute or relative impotency for procreation, provided the defect be by its nature perpetual, incurable, and preceded the marriage. Article 57:—Marriage is prohibited: 1. Of a person under 21 years of age, without the previous and express consent of the paternal authority, or the guardian of the minor person, as the case may be. 2. Of a woman before the expiration of 300 days, reckoned from the dissolution of her former marriage, or from the time the latter has been declared null, unless in one or the other case there should occur a birth before this term has expired. 3. That of a guardian of a female minor's person, or of any one of his descendants, with the ward, whilst the final accounts of the guardianship are not approved and cancelled, or where the deceased father or mother has especially permitted such marriage by will, or other public instrument. 4. Without the previous publication or dispensation of the legal edicts. Article 58:—A marriage entered into, notwithstanding the prohibitions contained in the last preceding article is valid; but the offenders will incur the penalties prescribed in the penal code. Article 59:—Marriages performed by priests of the Roman catho-

lic church, once recorded at the office of civil registration, will have civil effect, provided they do not contravene the provisions of the 55th article. Article 62 provides that civil marriages must be preceded by two edicts, with an interval of eight days between the first and second, and eight days more between the second edict and the marriage ceremony. If after the second edict six months are allowed to pass without the parties getting married, the edicts must be repeated in case they conclude to become husband and wife. The functionary in charge of the registration office may not authorize any marriage until three competent witnesses have testified before him, of the freedom and legal condition of the parties to contract marriage. Minors and wards must present the authorization of the parents or guardians; those who are not minors must produce evidence of having attained majority. Widowers and widows must produce the evidence of being such, and widows are required to prove besides that there is no infringement in their cases of the 57th article given above. If one of the parties wishing to marry is at the point of death, the marriage may be performed at once, but the provisions of the law must be carried out immediately after. As long as this is not done, none of the parties interested may claim the civil rights resulting from the marriage. An attorney invested with an especial power granted in a public instrument, may represent a contracting party at a marriage; but the other party must appear in person.

Husband and wife are bound to be faithful to one another, and to render mutual assistance. It is the duty of the husband to protect his wife, and to have her with him. The wife must obey her husband, live with him, and follow him wheresoever he may change his residence. The husband is bound to pay the expenses of her support and of others of the family. The wife is subsidiarily obliged, if the husband cannot defray them wholly or in part. A wife has the right to manage her own property that she brought to the marriage. In case of the dissolution of a marriage by death or other cause each of the parties is entitled to one half of the property resulting from actual profits made during the marriage, this being considered a contract of copartnership. Article 80:—Causes for divorce: 1. Adultery of the wife. 2. Scandalous concubinage by the husband. 3. Any attempt by either of the parties against the life of the other. 4. Cruelty and grave offences. Article 81:—An action for divorce may be instituted only by the innocent party, and that within a year from the day the offended party discovered the facts upon which the action is predicated. The action for divorce once commenced may be continued by the plaintiff's heirs. The divorce may also be asked for when one of the parties proves that they have been judicially separated two years without their having been reunited or reconciled during that time. The divorce being asked for, the court may authorize the wife to abandon the conjugal domicile, or order the husband to do it. In the first case the court will designate the house at which the wife must reside; also the amount of alimony the husband must allow her if she has no means of her own for her support. If the woman wilfully abandons the house that has been designated for her the husband may refuse the alimony, and if she is the plaintiff in the divorce proceedings, the case will be thrown out of court. A divorce being decreed, the marriage is dissolved. To the party who obtained the divorce will be given the charge of the keeping, rearing, and education of the children. Nevertheless the judge may, from motives of expediency, place the children in charge of the other party, or of a guardian. Children under 5 years must remain with the mother until they have attained this age, unless for the benefit of the children it should be necessary to deprive her even of their keeping. But whoever has the care of the children, both father and mother are bound to contribute for their support and education. In case of a divorce, or involuntary separation of bodies, the guilty party forfeits his or her right to the profits accruing from the estate of the other partner. The effects of the separation of bodies are the same as those of divorce, except that there is in the former no dissolution of the marriage tie. A decree of separation becomes null if the parties are reconciled and again live together.

Legitimate heirs. Such are the legitimate children, legitimate parents, and the consort. The consort legally separated has no right to inherit if he or she gave rise to the separation; illegitimate children inherit from their mother the same as if they were legitimate: natural children, recognized as such, inherit the father's estate, if there is no legitimate offspring. Grandparents, and other legitimate ascendants; the mother and grandmother on the maternal side, though merely natural, are considered legitimate, the same as the natural grandmother on the part of the legitimate father; the natural father who recognised the author with the latter's consent; the legitimate brothers, and

the natural ones on the mother's side; the legitimate offspring of brothers, legitimate or natural on the part of the mother, and the legitimate or illegitimate of the legitimate or natural sister on the maternal side; also the legitimate brothers of the legitimate parents of the author, and the uterine brothers not legitimate, of the mother, or the legitimate father. As to the municipality corresponding to the place of the author's last residence, if he never had his domicile in the republic, the effects go to the municipalities where they may be found at his death: the municipality where the largest portion of the estate exists will be declared the heir; and the others will be looked upon as legatees.

The code of commerse of Costa Rica has not yet been issued. A commission is engaged in codifying the laws bearing upon mercantile affairs.

On the 15th of April, 1887, the treaty concluded at Guatemala, between the five republics of Central America was officially published. The aim of the diet there assembled was "to establish an intimate relationship between them, and by making the continuance of peace certain, to provide for their future final fusion into one country." The treaty contains 32 articles:

Art. 1 declares that there shall be perpetual peace between the republics; all differences shall be arranged, and when not possible by mutual agreement, then referred to arbitration. In the case of armed disputes between two or more, the rest are to maintain the strictest neutrality. All the republics bind themselves to respect the independence of the others, and to forbid the preparation in any one of expeditions to assail any of the others. Art. 6 gives to the citizens of the different states similar privileges and rights throughout all of them. Constitutions must be amended to this effect. Art. 7 stipulates that the citizens of any Spanish-American republic may become naturalized after one year's residence, and natives of other countries after three years' residence. Art. 8 exempts the citizens of one republic from military or naval service or duties, and from forced loans or military contributions, and in no case are to be obliged to pay ordinary or extraordinary taxes other than those paid by the natives of the state. Arts. 13 to 17 are intended to establish a reciprocal freedom of navigation between the five countries; equality in port privileges; civil, commercial, and criminal suits are placed on the same footing in the several republics. Art. 27 provides that the contracting parties will endeavor peacefully so to frame matters as to render possible the ultimate confederation of the five republics. (To this end the five in 1888 appointed plenipotentiaries to meet in San José, Costa Rica, in September of said year.) Art. 30 calls upon the governments of the different states to respect the democratic principles of the several constitutions, and always refuse to support second presidential terms.

I append a few important items as to Colombian legislation, which it may be useful for Americans and all foreigners to know.

A marriage contracted in a foreign country, under the laws of that country, has the same civil effect in Colombia as if it had been celebrated within her territory agreeably to her laws. Marriage is forbidden in the direct line of ascendants or descendants, in all its degrees; also in the direct line of affinity of persons who are between themselves in the first degree, like a step-father with his step-daughter, or a step-son with his step-mother; in the collateral or transversal line of consanguinity it is forbidden in the second and third degree; that is, between a

brother and sister, uncle and niece, or nephew and aunt. An adopting father cannot marry his adoptive daughter, nor an adoptive son his adopting mother. So long as a woman has not completed 18 years, both the guardians of her person and of her estate are forbidden to contract marriage with her, before the accounts of the administration of the estate have been approved by the proper court. The same prohibition exists against the descendants of the tutor or curator. A woman convicted of adultery cannot marry her accomplice. Whichever of the consorts intentionally slays the other, or causes the death, or is convicted of having in any manner plotted it, becomes incapacitated for marriage during the remainder of his or her life. Bigamy or polygamy is strictly prohibited. Marriage is a civil contract, and may be performed by a proper civil officer; or by the minister of a religious denomination; but in the latter case the certificate of marriage must be filed in the office of the notary of the district, without which the marriage is not legal. Marriages performed not in the place of residence of the contracting parties, or in a foreign country, must also be recorded in the office of the notary. The consorts are bound to live together, to be faithful to one another, and to render every possible mutual assistance throughout life. The husband owes protection to the wife, and the latter obedience to the husband. The marital authority consists of the rights with which the laws clothe the husband over the person and estate of the wife. The husband has the right to compel his wife to live with him and to follow him wheresoever he may transfer his residence. This right is suspended when its exercise may involve imminent danger to the wife's life. The wife, on her part, has a right to be received in her husband's home. The husband is bound to support the wife, and the latter to aid him if his means are insufficient to meet all necessary expenses. The marriage involves a copartnership in property between the consorts, and the husband has the management of the wife's estate. The husband is the lawful representative of his wife, and she cannot, without his written authorization, appear in court, personally or by attorney, either as plaintiff or defendant. But the permission is not needed in criminal or police cases in which proceedings have been instituted against the wife, nor in suits-at-law by the wife against the husband, or vice versa. The wife cannot, without her husband's consent, enter into any contract, or desist from a prior contract, remit a debt, nor accept or refuse a donation, inheritance or bequest, nor acquire, sell, mortgage or pledge anything. The authorization of the husband must be expressed in writing, and he has an express and direct intervention in the act. But the wife does not need her husband's consent to dispose by will and testament of her own estate, provided the effect of her act is to be after her death. There are cases in which the refusal of the husband to give his consent may be duly superseded by permission of a court. In the latter case her acts are binding only upon her own property. The husband's consent is presumed in the purchase of movables that the wife buys for cash, or obtains on credit for the daily consumption of the family; but this does not extend to the purchase on credit of luxuries, jewelry, costly furniture, or even articles of dress and furniture, unless it is proved that the husband permitted it, and that the goods were used by his family. If the married woman publicly exercises any profession or industry, such as principal of a school, teacher, actress, mid-wife, innkeeper, nurse, the general consent of the husband is taken for granted as regards all acts and agreements relating to her profession or industry, whilst there has been no objection publicly expressed beforehand by the husband, and previously notified especially to the party with whom she is dealing.

Divorce. Causes for divorce are the following: Adultery by the wife, proved in the court; concubinage by the husband when legally established; mutual consent of the parties; desertion of one of the parties during four years, duly proved. Insanity, contagious disease, or some similar misfortune of one of the consorts, does not justify a divorce; but the judge, before whom the case is brought, may briefly and summarily suspend the duty of cohabitation, leaving in full force the other conjugal obligations. A demand for divorce may be preferred only by the consort who has not given cause for it; and in the proceedings only the parties themselves, or their parents may appear, but the voice of the government counsel must be heard for the benefit of the children, or of the wife, if there be no succession. No action for adultery can be instituted if the husband connived at it. The action being established, the court will order the separation of the consorts; will deposit the wife at the home of her parents or nearest relatives, and if there are none such, where the judge may deem the most suitable place. The court will place the children, if any there be, in charge of one of the consorts or both, or of some one else. The husband will be required to furnish sufficient means for the support of the

wife, and of the children left with her, and for court expenses. The court will adopt proper precautions in case the wife is enceinte. While proceedings for divorce are in progress, the husband will continue administering the common property; but he will not be permitted to cause injury to the wife's interests. Reconciliation between the parties puts a stop to proceedings for divorce whatever may be the stage thereof, on the court being duly apprised. Mutual consent of the consorts cannot be accepted as ground for divorce: when the husband is under 25 years, and the wife under 21; when two years have not elapsed since the marriage was solemnized; when 20 years have passed after the marriage took place; when the woman has completed her 40th year; when the parents of the consort, or in default of them, a family council to the 4th degree of consanguinity, or 2d of affinity, do not assent to the divorce being effected. A petition by mutual consent for divorce must be ratified by both consorts one year after; if this is done, the court will decree the divorce.

If the woman gave cause for divorce by committing adultery, she forfeits all right to the profits made during the marriage, and the husband will have the administration and usufruct of her estate, except such portion as she may have the separate administration of, or which she may acquire after the divorce. He is bound to allow her alimony, the court fixing the amount, according to the extent of the property, and the woman's conduct before and after the divorce. It is understood that this allowance continues while she remains unmarried, or if she does not lead a life of prostitution. The marriage is dissolved by a divorce.

Alimony is due by law to certain persons: 1st, to the consort; 2d, to legitimate descendants; 3d, to legitimate ascendants; 4th, to natural offspring, and their legitimate posterity; 5th, to natural parents; 6th, to adoptive sons; 7th, to adopting parents; 8th, to purely alimentary offspring; 9th, to purely alimentary parents; 10th, to purely illegitimate offspring; 11th, to the mother simply illegitimate; 12th, to legitimate brother; 13th, to a person who made a large gift, provided this was not rescinded or revoked. Alimony is not due to the persons herein designated in cases where an express law deprives them of it. Alimony may be divided into congruous and necessary; the former is that which is allowed for a modest living, but such as will enable the person to maintain his or her social standing; necessary alimony is that which is enough for the person's bare support. Alimony in either case involves the obligation of furnishing the party, if under 21 years of age, primary instruction, and also of enabling him or her to learn some profession or trade.

Foreigners. Colombian citizens are only those whom the organic law of the republic designates as such. All others are foreigners. The law recognizes no difference between Colombians and foreigners as regards the acquisition and enjoyment of civil rights. If the heirs of a deceased person for whom it becomes necessary to appoint a guardian should be foreigners and non-resident, the consular officer of the nation to which the heirs belong, should there be one at the place where the estate exists, may nominate the guardian or guardians who are to have the custody and management of the estate. The court will award the guardianship to the persons suggested by the consular officer if they are competent; and at the solicitation of creditors or other parties interested in the succession may associate one or more guardians, according to the amount and position of the property. Foreigners are called to successions abintestate the same as natives of the country, and under the same rules. When a foreigner dies in Colombian territory, leaving therein neither a last will and testament, nor heirs, the effects of the deceased will be delivered to the consul or vice-consul of the nation to which he belonged; but in order to effect this delivery it will be necessary: 1st, that one year shall have elapsed after the publication by the press on three consecutive times, of the foreigner's death, without any legal heirs having appeared to take charge of the estate as executor; for whenever such person shall appear the property must be surrendered to him, if there be no legal objection; whether the effects have already gone into the possession of the consul or vice-consul, or remain still in the custody of the court, or are in charge of a guardian pro tem; 2d, that by the respective judge, and with the attendance of the consul or vice-consul, if there be one, a judicial inventory be made of the effects of the deceased, and all legal taxes and dues be paid, as well as debts due private persons. Two authenticated copies of the proceedings must be forwarded to the general government of the republic. Consuls and vice-consuls, recognized as such, may exercise, in the intestate successions of their fellow-countrymen, who may have died without leaving heirs in the country, the following functions: 1st, affix their seals across those affixed by the judge on the effects and papers of the deceased; 2d, take part in the formation of the inventories,

valuations, and other judicial acts of the case; 3d, nominate the guardian or guardians who are to have the custody and administration of the effects of the deceased. The appointment of such guardian or guardians once made, the consul or vice-consul may not demand the surrender of the effects to him, nor interfere in their care and administration, though he may demand the accountability of the guardian or guardians for any abuse or mal-administration, etc. Nevertheless, in all such cases the stipulations of treaties between Colombia and foreign nations must be strictly carried out.

A last will and testament executed in a foreign country, according to the laws of that country, or of those of Colombia, will have full civil effect in the latter. A nuncupative will executed in a foreign country by a resident of Colombia, or by a foreigner who has a domicile in Colombia, provided it be authenticated by a diplomatic or consular officer of Colombia, such consular officer holding a commission issued by the president of said republic, has also full civil effect, but under the following conditions: 1st, that circumstances must concur; the three witnesses at least who should be present at the execution of the will must be Colombians, or domiciled in the place where the will is executed. 2d. That other rules required for nuncupative wills executed in Colombia be observed. 3d. That the instrument bear the seal of the legation or consulate. 4th. That the will which was not executed before a chief of legation, must have at foot the visa of this functionary, if there be one, and that said functionary place his "rúbrica" (scroll) at the head and bottom of each page. 5th. That a certified copy of the will be transmitted by the legation's chief, if there be one; otherwise directly by the consul to the secretary of foreign relations at Bogotá, who will authenticate the signature of the sender and then forward it to the governor of the department where the will is to take effect. The governor will transfer the document to the proper judicial officer, who will have it filed in the recorder's office. There are cases, as for instance, in the event of war, or the imminent death of a person where he cannot have his will executed before a notary or of a sufficient number of qualified witnesses, when the will may be executed before any three witnesses; but one of them at least must be able to read and write, though if the testator dies after the expiration of 30 days, such will has no effect.

Conjugal allowance. This is the portion of the property of a deceased person which the law allows to the surviving consort who has not the means for his or her proper support. Even a consort separated by law is entitled to the portion, provided he or she was not responsible for the separation. This right is understood to exist at the time of the death of the other consort, and will not cease either wholly or partially if the surviving consort acquires property. The surviving consort who, at the time of the death of the other consort had no right to a conjugal portion, does not acquire a right to it because of subsequently becoming indigent. If the surviving consort has property, but of less value than the conjugal portion, he or she will have a right to an amount sufficient to make up the complement. The conjugal portion is the fourth part of the estate of the deceased, in all the orders of succession, except in that of the legitimate descendants. Should there be such descendants the widower or widow will be reckoned among the offspring, and will receive the portion of one child, and no more.

Interpretation of contracts. The intention of the contracting parties being clearly known, they must abide by it more than by the literal meaning of the words. However general the terms of a contract may be, they will be applied only to the matter upon which the contract was made. The sense in which a clause may have some effect must be preferred to that in which it can produce no effect whatever. In cases where no contrary intention may appear, the interpretation best adapted to the nature of the contract should stand. Clauses in common use are presumed even though not expressed. The clauses of a contract must be construed each one by the other, giving to each one the sense best suited to the contract in its totality. They may also be construed by those of another contract between the same parties and on the same matter, or by the practical application which both parties have made of them, or one of the parties made of them with the assent of the other. When in a contract a clause has been expressed to explain the obligation, it must not be understood by that alone, that it was intended to restrict the contract only to that clause, excluding the others to which it naturally extends. If none of the preceding rules of construction can be applied, ambiguous clauses must be interpreted in favor of the debtor. But ambiguous clauses which were drawn up or dictated by one of the parties, whether debtor or creditor, will be construed against that party, if the ambiguity arises from the want of an explanation that the party should have furnished.

Payment through a voluntary assignment of assets, or through executive action on the part of a creditor or creditors: An assignment of property is the free and voluntary abandonment by the debtor of his assets to his creditor or creditors, when, in consequence of unavoidable accidents, he is not able to pay his debts. This assignment may be admitted by the court on acknowledgement of the facts; and the debtor may petition for it, any existing stipulation to the contrary notwithstanding. An assignment is unlawful in the following cases: 1st. If the debtor knowingly sold, pledged, or mortgaged, as his own, property belonging to other persons, a circumstance which is presumed, while the contrary has not been established; 2d, if the debtor has been condemned for theft or robbery, forgery, or fraudulent failure; 3d, if he has obtained deductions, or postponements from his creditors; 4th, if he has squandered the property. If the debtor has risked at play a larger sum than a prudent father of a family would risk in that way, for mere amusement, this is a case which presumes prodigality. The assignment is not admissible if the debtor has not made a clear, detailed and truthful statement of his affairs, or if he has availed himself of some other fraudulent means to injure his creditors. The cession or assignment must include all the assets of the debtor, excepting those which cannot be attached.

The following effects are free by law from attachment: 1st, one half the salary, income or pension, of which by reason of his employment, office, profession, or any other source, the debtor has the enjoyment; 2d, the debtor's couch, that of his wife, and the beds of his children living with him and at his expense, and the necessary wearing apparel of all these persons; 3d, the books relating to the debtor's profession, to the value of $200, and chosen by the debtor himself; 4th, the machinery and instruments that the debtor uses for teaching some science or art, to the same amount, and also to be selected by the debtor; 5th, uniforms and equipments of the military, of their arm and grade; 6th, the tools, etc., of an artisan or farm laborer, which are necessary for his own work; 7th, the provisions and fuel in possession of the debtor, in sufficient quantity, for one month's supply for his family; 8th, the property in effects which the debtor fiduciarily possesses; 9th, rights which are purely personal, such as those of use and habitation; 10th, real estate donated or bequeathed with the condition of not being attachable, provided its value is made to appear at the time of delivery, by valuation judicially approved; but the additional value the property may have subsequently acquired is open to attachment. The clause contained in the first part of the preceding number is understood to favor the person to whom the property was donated or bequeathed with the condition of being unattachable, but not other possessors of the same property. An assignment produces the following effects: 1st, the debts become extinguished to the amount that is paid off with the effects assigned; 2d, if the assets do not suffice to pay off all the debts, and the debtor later becomes possessed of other property, the unpaid portion of the debts must be covered out of such property. The assignment transfers to the creditors the right of disposing of the debtor's assets, and of the yield thereof, until his debts are covered. The creditor may undo the assignment, before the sale of his property, or of any part of it, by paying the creditors what he owes them. The assignment of assets does not avail co-debtors in solidarity, or subsidiary ones, nor any one who accepted an inheritance from the debtor without the benefit of inventory. In cases of assignment by executive action on the part of the creditors the assets of the debtor, except the unattachable portion, may be seized and applied to the payment of his debts. Certain debtors may not be compelled to pay more than they can fairly do, leaving them what is indispensable for a modest living, according to their class and circumstances, and with the obligation of reimbursing the same when they better their fortunes. The creditor is bound to grant this benefit to their descendants or ascendants; to the consort; to brothers and sisters; to copartners, but only in the reciprocal actions springing from the contract of copartnership; to the debtor who in good faith made an assignment, and is prosecuted for what he afterward acquired for the complete payment of the debts prior to the assignment; though he is entitled to this benefit only from the creditors in whose favor he made the assignment. The debtor must choose between this benefit, and that of alimony; he cannot have both.

Associations. These may be civil or commercial. The latter are those which are constituted for the express purpose of engaging in mercantile pursuits. All others are civil associations or companies. A company may be collective, "en commandite", or anonymous. A collective company is one in which all the partners administer by themselves, or through one or more managers chosen by common accord. The company "en commandite" is that in which one or

more of the partners bind themselves only to the extent of the capital they have contributed to the formation of the company. The anonymous, usually called stock company, is one where the capital stock is furnished by shareholders, who are responsible to the value of their shares, and which is not known by the name of any individual, but by the object for which the association is organized. Commanditaires or limited partners are forbidden to include their names in the firm, and to take any part in the administration. Any contravention of either of these provisions will lay on them the same responsibility as belongs to the members of a collective firm. Collective companies may have one or more commanditaires, and are subject to the same restrictions as companies en commandite; the active partners are bound as between themselves and toward third parties to the rules governing collective companies. Civil anonymous companies are subject to the same rules as mercantile companies.

Effects brought to a lodging-house by a person who becomes a lodger or guest, if delivered to the keeper or his employés are held to be in the custody of the landlord, or keeper of the house. The latter becomes responsible for any damage that may accrue to the effects by a fault of his own or of his subordinates, or of other persons visiting the house, and even for larcenies; but he is not responsible if he had to submit to force, or to unforseen occurrences, save when it can be imputed to his fault or bad faith. The landlord or keeper of the house is likewise responsible for the effects that the lodger keeps about himself. He is therefore responsible for damage to the effects for larcenies committed by his servants, or by other persons who may be in or come to the house, who are not of the family or visitors of the lodger. When a lodger claims that he has been damaged or robbed, he must prove the number, quality and value of the effects damaged, or which disappeared. A traveller who has effects of great value, of such as usually do not form part of the baggage of persons of his class, must make the same known to the landlord or keeper of the house, and show them to him if he wishes it, in order that especial care may be taken of them. If the lodger fails to do this, the judge may throw his claim out of court. In any case which may justly be attributed to the lodger, the landlord will be exonerated, This responsibility will also cease when it has been agreed to exonerate him from it. The foregoing rules extend to managers of inns, coffee-houses, billiard-rooms, bath-houses, and other similar establishments.

The following provisions of Venezuelan law are worthy of consideration:

Foreign companies desiring to acquire a domicile in Venezuela, under a recent decree of the president by and with the advice and consent of the federal council, must conform to the requirements of the code of commerce, and at the time of recording the instrument under which they became organized according to the formalities of their respective countries, must pay to the Venezuelan treasury the sum of 2000 bolivares, equivalent to about $385 in United States money, without reference to the amount of their capital stock.

Under a law of May, 1887, mines in the republic are the property of the state wherein they are located, and to be controlled by the federal executive. In the term "mining matter" are included all metalliferous, combustible, saline, and calcareous substances, fossil and fertilizing materials, precious stones, and the products of the depths of the seas and territorial waters. Mines are defined to be masses or deposits which may be found on the surface, or in the bowels of the earth, containing in veins, pockets, layers, or any other form, precious stones, gold, silver, platinum, mercury, lead, iron, copper, tin, zinc, etc., including all metallic substances, sulphur, coal, oils, mineral waters, fossil woods, marble, etc.

The government of the Plate region, like those of the other Spanish American republics and Brazil, have treaties of amity, commerce and navigation with nearly all the nations of Europe and America. Most of them have also consular conventions, and treaties for the extradition of criminals. Perú has likewise treaties with the Chinese empire, and with the Hawaiian kingdom.

The government of the Argentine republic maintains information offices. The civil code of the Argentine confederation, carefully prepared with notes by Doctor Velez Sarsfield, was formally

adopted by the national congress and executive. Doctor Sarsfield in the preparation of his work had before him the codes of all nations, both ancient and modern, together with the commentaries on law of the most distinguished Spanish and foreign jurists, those of the Americans, Story and Kent, among others, being often quoted. I give hereinunder some extracts from the code which may prove of interest to persons residing out of the Argentine republic.

Marriage. The validity of a marriage—where there is neither polygamy nor incest—is governed by the law of the place where it was performed, even if the parties abandoned their domicile in order not to subject themselves to its forms and laws. The rights and duties of the consorts are subject to the laws of the matrimonial domicile while they remain in it; if they change their domicile, then to those of the new domicile. The nuptial contract rules the community property, whatsoever may be the laws of the matrimonial domicile, or of that where the consorts may happen to be. In the absence of such a contract, and if there has been no change of domicile, the law of the place governs the movable or personal property of the consorts. Real estate is subject to the law of its locality. Personal property acquired after the change of domicile is governed by the law of the last domicile. A marriage contracted in a foreign country where it may have no civil effects is valid in the Argentine republic if it was entered into according to the rites of the Catholic church. A marriage dissolved in foreign territory in conformity with the laws of that country, but which could not have been dissolved under Argentine laws, does not place either of the consorts in condition to marry again. The law does not recognize betrothals. No court will take notice of any suit or action attempted to be predicated on such grounds, nor for damages alleged as resulting therefrom.

Marriage between Roman Catholics must be performed according to the canon laws, and the solemnities prescribed by the Catholic church. The law recognizes as impediments for a Catholic marriage those which the Roman Catholic church considers as such. The Catholic authority has the right to adjudicate upon the impediment, or to grant a dispensation. No legitimate or natural offspring under 22 years of age can marry without first obtaining the parental consent. The parents need not give reasons for refusing it, except when they are enjoying the usufruct of the offspring's own property. A minor who marries without first obtaining the parental permission may be disinherited to the extent of one fourth of the amount which would be his legitimate portion. Minor wards, and deaf and dumb who are unable to write, need the permission of their guardians to marry. If the latter refuse it, the proper court will adjudicate upon the matter. The following causes will be deemed sufficient for a refusal: the existence of a legal impediment; a contagious disease in the person wishing to marry the minor; disorderly or immoral conduct; having been sentenced for a crime; lack of means of support, and of ability to procure the same. Minors, whether they be citizens or foreigners, who have no guardians, must petition the district judge for his assent. Any priest marrying a minor without the requisite leave of his parents or guardian, may be prosecuted. Minors marrying without due authorization will not be allowed to manage any portion of their property until they have become of full age. Guardians, and their lineal descendants, are inhibited from contracting marriage with the ward, until the accounts of the guardianship have been audited and closed.

A marriage between a Catholic and a dissenter performed by a dissenting minister is null unless it be followed up by another ceremony performed by a catholic priest. A marriage which lacks the authorization of the Catholic church, is that contracted between non-Catholic christians, or between persons not professing christianity: it will have in the republic all the civil effects of a valid one, if the requirement of this code, and the laws and rites of the church to which the contracting parties belong, have been duly observed.

Husband and wife are bound to be faithful to each other: the unfaithfulness of one consort does not justify the unfaithfulness of the other. The consort violating this duty may be sued by the other, in an action for divorce, or criminally prosecuted on a charge of adultery. The husband is bound to have his wife at his home and to support and protect her. In the absence of stipulations, prior to the marriage in regard to property, the husband has the control and management of the community property, as well as of the wife's, which she

brought to the marriage or acquired subsequent to it. The wife must live with her husband wheresoever he may establish his residence, unless the place might endanger her life. She can not, without her husband's permission or authorization, enter into any contract or desist from any prior one, acquire property, sell, or bind her property, nor contract any obligation whatever.

Divorce. The only divorce authorized by the code is the personal separation of the consorts; but the marriage tie is not thereby dissolved. There can be no divorce by mutual consent of the parties. They cannot be held as divorced without a decree of the proper court to that effect. The cognizance of divorce causes between persons married before the catholic church, or with its authorization in mixed marriages, belongs exclusively to the ecclesiastical authority, but that bearing upon the civil effects of the divorce — such as have relation to the persons of the consorts, namely, the rearing and education of their children, and the control of the conjugal property—belongs exclusively to the civil courts. The latter have sole jurisdiction in causes for divorce between parties married without the intervention of the catholic church. Causes for divorce in these marriages are: 1st, adultery by the wife or husband; 2d, an attempt of one of the consorts against the life of the other. In these cases the court will decree the separation of the consorts, placing the wife in charge of some respectable family; will provide for the care of the children, and see that the support of the wife and of the children who were not left in the father's charge, as well as the funds needed for the wife's defense, be supplied by the husband. The confessions or depositions, under oath or otherwise, of the consorts are not admissible as evidence in these cases. Other evidence will be received upon its merits. The husband who gave cause for the divorce must contribute to the support of his wife, the court fixing the amount. Any one of the consorts who is destitute, has the right to demand a support from the other having means.

A valid marriage cannot be dissolved but by the death of one of the consorts. A marriage which can be dissolved under the laws of the country where it was contracted is indissoluble in the republic, except by the death of one of the contracting parties. The presumed death of a consort who is absent or has disappeared does not enable the other consort to contract a new marriage.

A woman cannot marry again before ten months have elapsed from the date of the dissolution or annulment of her marriage. If she be enceinte she can do it only after the birth. If she marries before the time thus prescribed by law, she will forfeit all legacies, and every other benefit which her former husband may bequeath to her in his will.

Offspring may be legitimate, that is born in wedlock, or legitimated by the marriage of the parents subsequent to the birth, provided at the time of the conception there was no legal impediment in the parents. Natural child is that recognized by one parent who had no legal impediment. An adulterine child is that resulting from the union of a man and woman who at the time of the conception could not contract marriage because one of them or both were married. Such a child must ever remain an adulterine. An incestuous child is that born of parents who had impediment to their marriage because of close relationship, which, according to the canons of the catholic church could not be granted a dispensation for. A sacrilegious child is that of an ordained priest, or member of a religious order recognized by the church, who has made a vow of chastity—a professed nun, for instance. All investigation from any quarter, in regard to the paternity or maternity of an adulterine, incestuous, or sacrilegious child is strictly forbidden. Such a child, under the laws, has neither father, mother, nor relatives. If such children are voluntarily recognized by their parents they may ask of them for a support to the age of 18 years; but have no rights of inheritance, neither have the parents any authority over them.

A man and woman who have agreed to become husband and wife may enter into any contract they may think proper, provided it is not illicit, but none can be made after the performance of the marriage; the one made prior to the marriage cannot be either revoked, altered or modified. Any agreement between the consorts, such as a renouncement of property by one in favor of the other, or of the right to the profits of the conjugal copartnership, is null. The validity of matrimonial conventions entered into out of the republic, will be adjudicated upon by the provisions of this code as regards juridical acts performed out of the national territory. A wife cannot reserve to herself the control and management of her own property, whether it be the portion she brought to the marriage, or that acquired afterward in her own right. She may only reserve that of some real property, or of such as the husband may donate to her. The object of the law is to protect the interests of the wife; she

is deprived of the right of alienating her property, but facilities are afforded to preserve, as well as to save her dower, not by means of a privilege, but by the common right recognized in property. Moreover, the wife at all events remains a personal creditor of the husband; so that in case of an assignment of property, or of the husband's death, she may have a right to demand the full restoration of her dower, though without any privilege whatever. This does away with the necessity of tacit liens, which experience has condemned.

The following are legitimate charges of the community property. 1. The support of the family and of the common children; also of the legitimate children of one of the consorts; and the alimony which one of the consorts owes to his ascendants. 2. The repairs and preservation of the individual property of the husband or wife. 3. All the obligations and debts contracted during the marriage by the husband, and those which the wife may contract in the cases wherein she can lawfully bind herself. 4. What may be allowed or expended in establishing the consort's offspring. 5. Whatever may be lost by accidents of fortune, such as lottery, gambling, bets, etc. The husband is the lawful manager of all the community property, whether dotal, or acquired after the conjugal copartnership was entered into. In this respect the laws are similar to those of other republics; in fact, they seem to be reproductions of the laws of Spain.

Contracts. Contracts involving upward of $200 must be drawn up in writing; they cannot be proved by witnesses. No contract can be entered into to the prejudice of a third party. Creditors may exercise all the rights and actions of their debtor, excepting those which are inherent in his person. Contracts made outside of the republic's limits will be adjudicated upon, as to their validity or nullity, their nature, and the obligations resulting from them, by the laws of the place where the same were entered into. Immoral contracts, which if recognized in the republic would prove injurious to the rights, interests, or convenience of the state or its inhabitants, are excepted from the rule. Contracts made in foreign countries with the intent of violating the laws of the republic are of no value whatever within her territory, even though they may not be unlawful in the place where made. Contracts made in the republic to violate the rights and laws of a foreign nation will have no effect whatever. Contracts made in or out of the republic, which are to take effect within her territory, will be adjudicated upon, as to their validity, nature and obligations by the laws of the republic, be the contracting parties nationals or foreigners. Contracts celebrated in the republic to have effect out of her, will be subject to the laws and usages of the country where they are to be carried out, whether the contractors are national or foreign. Contracts made in a foreign country to convey real title to immovable property situated within the republic, will have the same legal force as those entered into within the territory of the republic, provided they are evidenced in public instruments of writing, duly authenticated. An instrument executed before any officer having the public faith, whether judge, notary public, recorder, or whatever his office may be called, comes within the meaning of public instrument of writing. Such instruments must be recorded according to the laws of the republic in order to become legal. In all contracts which are to take effect in the republic, whether the debtor be a resident, or not domiciled therein, may be brought for adjudication before the courts of the state. If the debtor has his domicile or residence in the republic, and the contract is to have effect without her limits, the creditor may sue him before the courts of his domicile, or of those of the place of fulfilment, even though the debtor be away from the place.

Sale of property. Any person in possession of civil rights may sell anything that he or she is the owner of; and in the same manner any person who is in condition to bind himself or herself may purchase from any person who is in capacity to sell, save in the following cases: A contract of sale cannot take place between husband and wife, even when there is a judicial separation of their property. Neither guardians or person or property, nor parents, are authorized, under any circumstances, to sell property of their own to those who are under their guardianship, of paternal control. Emancipated minors cannot sell, without judicial authorization, their own real estate, or that of their wives or children. The right of purchasing is forbidden in many cases; the object of such prohibition being to avert fraud or even a semblance of fraud.

Copartnerships. In all contracts of copartnership the parties must either contribute an actual value, or an obligation to render service; the one who contributes the former is a capitalist partner; the other is an industrial partner. Any contract in which one of the parties comes in with only his credit

or influence is null, even though he may bind himself to contribute toward the losses, should there be any; any copartnership involving all the present and future property of the partners, and of all the profits they may obtain, is null; but all property existing at the time of forming the copartnership may be bound, designating it; as also the profits when they are of some certain and determined business. Any contract giving to one partner all the benefits, or freeing him from all share in the losses, or from any obligation to furnish capital, or in which any of the partners shall not share in the profits, is null. All stipulations to the following effect are null and void: 1. That no one of the partners may renounce the copartnership, or be excluded therefrom, even for just cause. 2. That any one of the partners may remove his share of the capital stock at his pleasure. 3. That the capitalist partner or partners may have restored to him or them his or their portion of the capital stock, together with a certain plus, or with its products, or with an additional sum, whether there be profits or not. 4. Securing to the capitalist partner his capital or the accidental profits. 5. Stipulating in favor of the industrial partner a fixed retribution for his labor, whether there be profits or not.

Succession. The right of succession to the estate of a deceased person is governed by the local law of the domicile of the party deceased at the time of death, whether the successors be national or foreign. The jurisdiction over the succession belongs to the courts of the last domicile of the deceased. All actions at law on the succession, or anywise affecting it, must be instituted before these courts. Persons may be disinherited in the Argentine republic for serious offences against society, or against the testator.

Last wills. When an Argentine is in a foreign country he may make his last will in any of the forms established by the law of the country where he happens to be. Valid in the Argentine republic is a will executed in a foreign country by an Argentine, or by a foreigner domiciled in the republic, before a minister plenipotentiary, chargé d' affaires, or consul commissioned by her government, and two Argentine or foreign witnesses, domiciled where the will is executed, the instrument bearing the seal of the legation or consulate. A will executed in the form above expressed, but not before a chief of legation, must have the visa of the latter, if there be one in the country, in an open will at the foot of it, and on the closed one upon the envelope. An open will must have the rúbrica (scroll) of the same officer, or of the consul, if there be no legation, at the beginning and end of each page. In the event of there being no consulate or legation of the republic, these formalities may be filled by a minister or consul of a friendly nation. The document will be then forwarded to the secretary of foreign affairs of the Argentine republic. An olographic will must be written throughout and signed by the hand of the testator. The pages must show neither print, nor writing by another hand. The utmost care must be observed about the date. The slightest defect in the formalities may invalidate the will.

Disinheritance. An heir at law may be disinherited for good cause; this cause must be expressed in the will. Ascendants may disinherit their legitimate or natural descendants for the following causes: 1. For acts of violence, such as a person striking his parents or grandparents; a mere threat is not enough. 2. If the descendant make an attempt against his ascendant's life; if the descendant has made an accusation against his ascendant of a crime amenable to the penalty of five years' imprisonment, or hard labor. The descendant may disinherit the ascendant for some of those causes. The descendants of the disinherited party surviving the testator occupy his place, and have a right to the share that their ascendant would have been entitled to had he not been excluded from the succession; but the latter will not have the usufruct nor administration of the property which for this cause his descendants may inherit. The subsequent reconciliation of the offender and offended annuls the right of disinheriting, and the disinheritance already made.

Early in July, 1887, the Peruvian republic invited the several Spanish-American sister republics to send representatives to a sanitary congress to be held at Lima, and to open its sessions on January 2, 1888. The object of the congress was to prepare measures of protection against epidemics, and to arrive at an understanding on the subject of quarantine regulations. The congress opened on the day appointed, but delegates from Perú, Ecuador, and Bolivia were the only ones present. Meanwhile a sanitary convention had been signed in December at Rio Janeiro by a sanitary convention of delegates from Brazil, Uruguay, and the Argentine republic. The main clauses agreed upon were: each party would build a lazaretto, and in time of pestilence at least one floating hospital; quarantines or other sanitary measures undergone

in the lazaretto of any of the three powers are valid for all the others. The closing of ports to vessels from abroad is prohibited, and no vessel is to be driven away, no matter what disease prevails aboard. Packets and other steamers carrying emigrants must have a doctor and be supplied with a steam disinfector, medicines, and disinfectants, keeping, besides, regular books of record. A corps of ship sanitary inspectors is to be established by each power, to embark in vessels, fiscalize the execution of the sanitary provisions, and report on all occurrences during the voyage. Strict quarantine is limited to ten days for yellow fever, eight for cholera, and twenty for eastern plague, and the time may be counted from the date of the last case on board, if duly verified.

I append hereunder some provisions of Bolivian legislation, which will be found of general interest:

The mining laws of Bolivia were very carefully revised, and the new Spanish code was adopted, so as to promote the introduction of foreign capital for the development of mining. Its provisions are mainly as follows: Minerals and mines may be searched and asked for, granted, and worked, when found on public lands, and on private unfenced lands; but within fenced ground, the proprietor's consent, or a court's permission, as the case may be, must be first obtained. All persons not deprived of civil rights may apply for and obtain one or more pertenencias—each of one héctara or 100 métres square—in one grant, but in no case exceeding 80 pertenencias, or 80 héctaras. The pertenencias of a grant must join each other, having common side-lines, forming a right-angled polygon. Priority of application will have the preference, however slight the interval between the petitions may be. Gold or tin deposits, or other metallic minerals, existing in rivers, placers, pockets, irregular deposits, or bedded veins, or public or private lands, are subject to the same law applicable to all mineral grants. The claimant is the owner of, and may work to an unlimited depth, all the ground, veins, deposits, and mineral findings within his surface claim, and within the vertical planes passed through all the surface boundary lines of such claim. The grants are perpetual, so long as the yearly license impost of five bolivianos, or about five dollars, per héctara is regularly paid. If the impost of one year is not paid the claimant will forfeit his right, title, and interest in and to the claim; and his property will be disposed of at auction to the highest bidder; from the proceeds of which will be paid off his indebtedness, together with costs, and 10 per cent of the gross amount of sale, and the balance if any there be, will be turned over to him.

Attention is invited to the following provisions of Peruvian law, which it may be useful for citizens of the United States and other fornigners to know. They will be found to be liberal, both toward foreigners who establish themselves permanently and engage in some lawful occupation, and toward those who temporarily sojourn in the country for pleasure or business:

The constitution of Perú explicitly says who are Peruvians and who are foreigners. All Peruvians are clothed with civil rights, excepting those who are expressly deprived of them by law. Civil rights do not include political rights. Foreigners enjoy in Perú all the rights appertaining to security of persons and property, and the free administration of the latter. The acquisition of real estate (immovables) and the conditions of trade by foreigners will depend on the treaties concluded with their respective governments, and on especial laws and regulations. As regards succession, the following are the provisions of law: A foreigner may inherit property existing in Perú, by proving that in his country Peruvians are allowed the same right of inheriting. However, in common practice, foreigners are allowed the utmost freedom for acquiring both real and personal property. No one ever thinks of invoking against them the provisions of the law. Of course, real estate must be conveyed by public deed; any other evidence is subsidiary. No inhabitant of Perú can refuse to fulfill all the lawful obligations contracted in the republic. Foreigners domiciled in the country or native Peruvians, wheresoever they may happen to be, can be summoned to appear before the courts, and compelled to carry out their contracts, even though they may have entered into them abroad, so far as concerns all matters which under the laws of Perú can be made subjects of contract. A foreigner who is in Perú, though not domiciled, may be compelled to fulfill contracts entered into by him with a Peruvian, even if it were in a foreign country, in matters not prohibited by

the laws of the republic. A foreigner, though absent from Perú, may be summoned to appear before her courts, when it is intended to institute proceedings in regard to property existing in Perú, or when a civil action is established in consequence of an offense or crime the foreigner may have committed in Peru, or when in a contract entered into by a stranger, it is stipulated that the courts of Peru shall adjudicate upon disputed points. Whenever a contract has been made in a foreign country, the laws of that country will be brought into requisition to adjudicate upon it, as far as they are not contrary to the laws of Perú. The latter will rule if the contracting parties prefer to abide by them. The fulfillment of obligations contracted abroad between foreigners cannot be asked for in Perú, unless the parties submit to the laws of the republic. A Peruvian woman who marries a foreigner, and a foreign woman who marries a Peruvian, follow the conditions of their husbands. But if they become widows, the former recovers, and the latter retains the status of a Peruvian, providing they reside in Perú.

Personal taxes are paid where the tax-payer has his domicile; real estate taxes where the property is situated. These provisions are also binding on foreigners. Residents, foreign as well as native, are subject to the same municipal burdens and charges. Transient persons do not enjoy the rights of residents and are exempt from their burdens.

In Perú all citizens, naturalized as well as native, are endowed with political rights; but there are certain rights which only those of native birth can exercise under the laws of the country. The most important of political rights is that of suffrage. But not all Peruvians are endowed with the privilege of voting or being voted for. Three conditions are required by law: 1st, that of birth, extraction, or naturalization; 2d, that of citizenship; 3d, the combination of especial circumstances, such as being able to read and write, being the owner of a shop, possessing real property, paying taxes and being registered. And even possessing these qualifications to exercise the right of suffrage, they must not be among those excluded by the law on elections, which deprives of that right ministers of state, prefects, and other functionaries, officers and men of the army, beggars, domestic servants, and all those who have forfeited their citizenship.

Transient foreigners cannot fill any public office whatever. As domiciled foreigners are amenable to the municipal burdens and charges of their domicile, they may, therefore, be called upon to discharge all duties and functions which are intimately connected with the interests and advancement of the locality. However, they cannot be members of the municipality, the law demanding that the holders of such offices must be citizens. Naturalized citizens, like the native citizens, may aspire to public office; but not to the high offices of the three branches of administration, which are reserved for native citizens; such as president and vice-president of the republic, members of the chamber of deputies, or of the senate, or of the standing committee of the legislative body, ministers of state, judges of the first resort, justices or officers of the supreme court of justice, or of superior courts, fiscal agents, notaries, and consul-generals of the republic.

Foreigners, both transient and domiciled, are not permitted to institute claims before congress, the executive or any authority for infractions of the constitution; this right belongs exclusively to the Peruvians. They have not the right of peaceably meeting, whether publicly or privately. This has been repeatedly done, however, without the authorities preventing it. Foreigners are not bound to render military service, but naturalized foreigners are. Many foreigners, even without being naturalized, are received in the ranks, and in men-of-war, but never allowed to fill the high positions. A domiciled foreigner is bound to render service in defense of the locality where he lives, or for the preservation of the peace. These duties are modified under treaties with certain foreign governments.

In the enjoyment of personal guarantees there is no difference between Peruvians and foreigners. The latter can freely enter Perú, reside where they please, marry, dispose of their property by will, or in case of dying intestate, their legal heirs are protected. They can inherit real or personal estate, obtain patents of invention, establish manufactories or any other kind of industry, subject to the same laws as Peruvians. They are also entitled to the fruits of their literary labors and of their discoveries.

Any foreigner residing in Perú, desirous of becoming a citizen of the country, can obtain naturalization by applying for it, providing he is at least 21 years of age, has some profession, or trade, and his name appears on the civil register in the manner provided by law.

Many foreigners, naturalized or not, have entered into large contracts with

the government. A large number of them are engaged in mercantile pursuits, in farming, mining, manufacturing, navigation, railway and telegraphic enterprises. Indeed, it may be said that the greater part of the wealth of Perú, and the most lucrative enterprises are in the hands of foreigners, either as owners, or as managers and agents. Such as have not of their own accord become citizens of the country, never were required to take out papers as citizens. All are equally enjoying the same protection in their persons and interests, from the laws and the government authorities.

Betrothals, in order that they may have civil effects, must be made to appear in a public instrument of writing. The effects of a betrothal are: a mutual obligation on the part of the contracting parties to become husband and wife; the right of each party to oppose the marriage of the other party to another person; a responsibility for damages incurred by the party violating the contract in favor of the other. Any terms not unlawful may be stipulated in the contract. A betrothal may be dissolved for several reasons. The same conditions are required for betrothal as for marriage.

There is no marriage unless the contracting parties openly make manifest their free and mutual consent. A marriage lawfully contracted is indissoluble; it ends only with the death of one of the consorts. Any agreement to the contrary is null and of no effect. Marriage may be contracted by proxy under an especial letter of attorney. The terms stipulated for a marriage will be valid, if not opposed to nature, or to social laws and morality. Marriage is forbidden between relations by consanguinity in the direct line of ascendants or descendants without any limitation, or distinction between legitimate or illegitimate; those by affinity in the same line of ascendants and descendants; brothers and sisters, whether legitimate or illegitimate; the adopting party with the adopted one, and neither of them with the widowed consort of the other; a married person while his or her consort lives; anyone who has received the major orders of priesthood; those who have professed in some monastic order making solemn vows of chastity; the person who slew one of the consorts, or was an accomplice to the deed with the surviving consort; the impotent; the insane, and all persons of mental incapacity. Besides the above, the catholic church has other impediments, the dispensation of which must be obtained from it, but the civil law has nothing to do with them; a guardian and his offspring cannot marry his ward before his accounts have been legally settled and closed. Minors must obtain the consent of their parents, or at least of the father; if he is dead, and the mother is in the exercise of "patria potestad", then her consent is necessary; if both parents are dead, then that of the nearest ascendants, paternal or maternal, and in default of these, of the family council. The consent can be refused only for very grave causes; 1st, the existence of some legal objection; 2d, contagious disease; 3d, disorderly or immoral conduct; 4th, some habitual vice; 5th, grave offences against the parents by the party desiring to marry the minor; 6th, absence of means of support; 7th, a great difference of class and social condition; 8th, having been sentenced to a degrading penalty; 9th, any other cause for a well-grounded belief that the union will prove an unhappy one. Minor daughters marrying without the consent of their parents forfeit the right of dower. Marriage in Perú is performed with the formalities established by the church in the Council of Trent. A marriage contracted out of the Peruvian territory in accordance with the laws of the country where it was effected, is reputed valid for the civil effects, provided it is not of persons that the civil code declares to be incapable. The Peruvian man or woman who marries in a foreign country must, within three months of his or her return to Perú, have the marriage certificate filed in the recorder's office of the party's domicile; the three months having elapsed without carrying out this clause, the civil effects of the marriage will be suspended until the provision of the law is fulfilled.

Nullity of marriage. The marriage of persons who cannot absolutely contract it, is null. A marriage entered into under duress is also null; an error respecting the person or substantial condition of the consort, annuls the marriage. The nullification of a marriage may be demanded by the consorts themselves, their ascendants, the family council, and others having an actual interest in it. Duress or error can be pleaded only by the consort who suffered by it; and solely during 30 days after perfect freedom was obtained, or the error was discovered. Nullification for impotence can only be asked for by the other consort. After six months of living together an action for impotence can no longer be instituted. Impotence, insanity or mental incapacity befalling one of the consorts does not dissolve a marriage. A marriage declared null produces civil effects respecting the consorts and the offspring if it was contracted in good faith. If contracted in bad faith by one of the

consorts, the marriage has no civil effects for that consort; but it will in favor of the other and of the offspring had by the annulled marriage. The nullity of the marriage does not prejudice the rights of a third party who has in good faith contracted with them.

Rights and duties. The parties to a marriage assume the obligation of rearing, supporting, and educating their offspring. They owe one another faithfulness, succor, and assistance. The husband must protect his wife, and the wife obey her husband. The wife is bound to live with her husband, and to follow him wherever he deems proper to reside. The husband is bound to have his wife at his home, and to furnish her with all the necessaries of life according to his means and position The wife cannot appear in court without her husband's consent; but she does not need the consent when she is defendant in a criminal case. The husband is the administrator of the property of the conjugal partnership. The wife's paraphernalia are not included in the administration. They remain in her own charge. The wife cannot give, sell, mortgage, nor acquire title, without the husband's intervention or his assent in writing. She may, however, without his authorization execute a will, and inherit. The wife who is not authorized by her husband, may be by the court when the latter deems there is good and sufficient cause therefor; but the husband must be allowed a reasonable time to plead objections, etc. The wife is not responsible for her husband's debts under any circumstances. If she bound herself jointly with her husband, or alone with the consent of her husband or of the court, she will be responsible only for the portion that was used for her own benefit; this does not include what has been used for support, which the husband is bound to give his wife.

Divorce in Perú is the separation of the consorts, but the marriage subsists. Causes for divorce are: adultery by the wife; concubinage, or public incontinence on the part of the husband; cruel treatment; an attempt by one of the consorts against the life of the other; a deadly hatred of either of them, made manifest in frequent quarrels, or repeated grave abuses; the incorrigible vices of gambling, inebriety, dissipation, or prodigality; refusal of the husband to support his wife; the wife's refusal, without grave and just causes, to follow her husband; her abandonment of the common home, or obstinate refusal to perform the conjugal obligations; absence without just cause for more than five years; permanent insanity or furor rendering cohabitation dangerous; chronic contagious disease; the condemnation of one of the consorts to a degrading penalty; a divorce for the wife's adultery cannot be instituted if the husband consented to it, or lived with her after being apprised of her adultery. In divorce cases and in others relating to the married state the ecclesiastic court has cognizance. During a trial for divorce the children will be in the father's custody, unless the court should deem it justifiable to place them in charge of the mother, or of a provisional custodian. The parents continue bound to contribute to their support. An honest wife cannot be refused the privilege of having her daughters with her, if she gave no cause for the action for divorce. The wife has the right under any circumstances of having charge of her children to the age of three years. The court, at the husband's petition, may designate a house where the wife shall live during the pendency of the suit for divorce. She is entitled to support from her husband, and to means for carrying on her suit. The court will determine the amount in either case. The wife may demand that her husband secure the preservation of her own property, her share of profits during the marriage, and everything else that he will be bound to return or deliver in case the nullity or divorce should be decreed. After a divorce has been decreed, all conjugal duties cease between the parties, as regards bed and board, and the copartnership is dissolved as regards property. The consorts reassume their separate civil rights. The offspring will be placed in charge of the parent who obtained the divorce, unless the court for good reasons decrees otherwise. If the divorce was the result of the husband's misconduct, the court may decree that he pay his wife alimony according to his means, but never exceeding one fourth of his income. The same holds good in favor of the husband if she is rich and the husband poor. All the effects of the divorce cease if the consorts become reconciled.

Legitimate children, as a general rule, are those born in wedlock, during the married life of a man and woman. All children born or conceived during the marriage have the husband for their father. There are exceptions, however, to the rule. The husband may deny the paternity in the following cases: Birth of the child before 183 days are completed from the date of the marriage; absence or illness of the husband, or some other accident, which made the generation impossible during the first 123 of the 305 days preceding the day of the child's birth; judicial separation of the consorts for upwards of 305 days

previous to the child's birth; concealment of the delivery by the wife. The husband cannot deny paternity to the child that his wife bore out of time, if before the marriage he was aware of her pregnancy; if he signed or caused to be signed in his name the record of the child's birth. A child born out of wedlock, where the father is unmarried, may be recognized by him as his natural child; if he marries the mother afterward, the child becomes ipso facto legitimate, and possessed of all the civil rights that the legitimate have. An adulterous child brought into the world by a married woman, has no rights whatever from her, such as illegitimate children generally have from their mothers. The descendants of a natural son who died before the marriage of his parents are reputed as descendants of a legitimate son.

The law recognizes a family council to watch over the person and interests of a minor whose parents are dead. Even during the life of the father or mother, there may be a family council; the council is composed of the grandparents, brothers and sisters, uncles and aunts of the minor, and also the mother, if she is living but does not have the administration of the minor's estate, which she might have lost by reason of a second marriage, or some other cause.

Registration office. There is one in each district for registering births, marriages and deaths.

In the subject of last wills the following provisions are of especial interest to foreigners: A foreigner disposing by will of property he possesses in Perú, must execute his will with the formalities provided by the civil code; a foreigner who wills property that he owns out of Perú may conform to the laws where the property is, or to those of the country of his nativity; a foreigner having in Perú a mercantile establishment, in which he does wholesale business, is permitted to dispose of the same according to the laws of the country of his birth. But the last two clauses aforesaid have no effect if the foreigner has herederos forzosos, or heirs-at-law; a testator may leave one-fifth of his estate to whom he pleases, but not if he has natural or illegitimate offspring, or descendants dependent upon him. In the latter case he may dispose of only one-sixth of the fifth. The rest goes to the natural or illegitimate children. The testator may name his natural son as his universal heir, even though he have legitimate ascendants. The following cannot be made heirs: Mortmains, excepting hospitals, and national establishments of benevolence and education; the testator's confessor; professed religious of both sexes; physicians, surgeons and apothecaries who attended the testator in his last illness, unless they be his relations by consanguinity within the fourth degree; the notary before whom the last will is executed, his wife, parents, children, grand-children, fathers or mothers-in-law, or sons or daughters-in-law.

The appointment of an heredero forzoso must be made free from restrictions; the testator has no authority to impose conditions, except in regard to the portion of the estate that he is at liberty to dispose of as he pleases. An heir named as such by mistake, as for instance, if property is left him because he was erroneously taken for a relative, may be set aside. A husband may not impose in his bequests to his wife the condition that she shall not marry again, but he may forbid her marrying a certain person whose name is given. Conjugal fourth: A widow having no property of her own will inherit one-fourth of her husband's estate whether he left a will or not. The widower has the same right respecting his wife's estate, if besides having no means of livelihood he is a cripple, or habitually sick, or aged more than sixty years. The conjugal fourth is deducted after having set aside for the debts of the estate, and one-fifth. If there are children or legitimate descendants, the conjugal fourth can in no case exceed $8,000, nor can it be higher than the portion accruing to each heir. The same rule stands when the wife dies without legitimate succession, but leaving children, or descendants entitled to the whole inheritance. The conjugal fourth stands even when the widowed consort can live by his or her personal labor, or if property is acquired subsequently. There is no conjugal fourth if the bequests or profits, or the sum total of these two are equal to it; no conjugal fourth is allowed to one who married in articulo mortis; a widower or widow who leads a scandalous life, forfeits the conjugal fourth; a consort who gave cause for a divorce has no right to a conjugal fourth. The husband administers the joint property of the partnership. The property that the husband brought to the marriage is exclusively his own, as also what may subsequently come to him by inheritance, gift, or other gratuitous title; or what he acquires by purchase or exchange with the funds proceeding from the property he owned before. The following belongs exclusively to the wife: her dower; 13 pieces of money that the hus-

band gives the wife as a pledge of the act of marriage; her paraphernalia; what she may acquire by inheritance, gift, or other gratuitous title, after the dower was constituted; what she may acquire by purchase or barter with the property she owned before. The income or products of the property brought by the two consorts to the marriage become community property, and also all that each of the consorts acquires by his or her labor, industry, profession, or trouble of any kind. The wife's paraphernalia are the effects that she brings to the marriage not comprised in the dower. Community property is all that remains after deducting the separate estate of each consort and the debts. The wife forfeits her share of the community property for the time that she abandons her husband's home and lives apart; also if she leads a lewd life. Under the law the community property belongs, one moiety to each consort; but this division takes place after the death of one of them, or in the case of a divorce, in which the court decrees that each party shall take a moiety.

Bills of exchange. A bill of exchange must express on its face the name of the payer, or person on whom it is drawn, the place and time where and when it is payable; the name of the person in whose favor it is drawn; the amount or thing that is to be paid or delivered; the cause of issue, date of drawing, and signature of the drawer. The person on whom the bill is drawn is bound to pay it on presentation, if it is at sight, or accept it to be paid at maturity. If the bill states no date for its payment, it is understood to be payable on presentation. The person on whom the bill is drawn cannot retain it without having paid it; if he retains it during three days, it will be understood that he has accepted it, and he is always bound to restore it. The acceptance of a draft must be unconditionally; otherwise its non-acceptance must be made known; if accepted for less than the amount on its face, it will be protested for the balance. A draft once accepted, the acceptor is bound to pay it even if he has no funds of the drawer. The latter has the right to demand that the holder shall identify himself. If an accepted draft is not paid at maturity the drawer and acceptor are both responsible for its payment. A person who fails to pay a draft, having funds of the drawer, is responsible for interest, costs and damages. Endorsers are not responsible if the protested or unpaid draft has not been presented to them within less than two months, besides the time required for the transit from the date of the protest, or from the date of maturity when the accepted draft should have been paid. If the holder of a draft does not apply for its payment when due, the endorsers are thereby freed from further responsibility, his claim will then be only against the drawer and the acceptor. The responsibility of the drawer ceases if he proves that he had, at the time the draft became due, the requisite funds in the hands of the acceptor. Bills of exchange among merchants are mainly subject to the prescriptions of the commercial code, which is the Spanish code, with a few modifications. The commercial code of Perú recognizes five classes of failure, viz: suspension of payments; fortuitous insolvency; culpable insolvency; fraudulent insolvency, and flight. The first and second class need no definition: culpable insolvency means that which is brought on by the following causes: excessive expenditure, gambling, bets, simulated purchases and sales, or other speculations, the result of which were dependent on mere chance; reselling at a loss, or at less than the current price goods purchased on credit, within the six months preceding the failure, and payment for which was still due; if it should appear that in the period between the last inventory and the failure there was a time when the bankrupt owed double the amount of his net assets; and other causes. In the 5th class are included all cases of actual fraud, or attempts to defraud the creditors; the list of such cases is very long. Failures of brokers are always reputed fraudulent. The accomplices of a fraudulent bankrupt, besides the penalties they may have made themselves amenable to under the penal code, will be condemned to forfeit every right they may possess to the assets, to restore to the mass of assets the property, rights and shares, upon the subtraction of which rests their complicity; to the penalty of double the amount of the subtraction, even though it was not accomplished, one half to be paid to the treasury, and the other to be added to the assets. These rules apply also to the accomplices of bankrupts who have fled or absconded; those who merely aided a bankrupt to escape are not accomplices of the flight, nor do they incur the civil responsibility, but they will be amenable to the penalties which the laws inflict on persons who knowingly favor the escape of criminals. None but a merchant can be declared to be in a state of bankruptcy. All assignments made by merchants to their creditors are held to be failures, and to be regulated by the commercial code. Bankrupts of the first and second classes will be allowed to continue doing mercantile business, on pre-

senting proof of having carried out their agreements with their creditors; or if there was no agreement, that they had paid off their liabilities. For the administration of justice in mercantile affairs, there are the following courts: in the first instance the tribunal de comercio, and the territorial deputations in their respective districts; the tribunales de alzadas in the second and third instance, and the national supreme court. No action can be instituted in writing, on commercial acts, without its being preceded by a proceeding of conciliation. This act takes place before the tribunal de comercio in Lima, and the respective commercial deputations in the other judicial districts. Every trial for a claim not exceeding $80 is verbal, and admits of no appeal. In claims not exceeding in value $1000, the same proceedings will be observed as for small amounts under the civil code of procedure.

The commission entrusted with the codification of the laws of Chili consulted both ancient and modern codes, and in applying them did not fail to take into account the peculiar circumstances of the country. Whatever was found useful and well suited to Chili in the laws of other nations was adopted, but in the main the Spanish Código de las Partidas and the French civil code were the two beacon lights that the commission always had before them, and where they differed, that which seemed more adapted and convenient was chosen. The new code did away with a large portion of the difficulties which formerly embarrassed the administration of justice in civil matters, has diminished litigation, and tended to give greater prestige to the judiciary by making manifest that its decisions are in strict conformity with legal precepts. Subjoined is a number of excerpts from the code:.

Chilians are those whom the constitution declares to be such; all others are foreigners. The law recognizes no difference between Chilians and foreigners as regards the acquisition and enjoyment of civil rights. A foreigner may be domiciled or transient. The former means a person who is in the country, and has had himself registered, cum animo manendi. A transient is a mere temporary sojourner. The place where a man has his permanent residence, or habitually exercises his profession or trade determines his civil domicile. A married woman, who has not been divorced, follows the husband's domicile, while he resides in Chili; minors who are under the paternal authority follow the father's domicile. The law reputes a child's existence to begin from the moment of its birth; a child that dies before leaving the mother's body is held to have had no existence. Yet the law protects the unborn child, and any punishment to be inflicted on the mother which might imperil its life, must be put off till after its birth. A person who has disappeared, whose whereabouts cannot be ascertained after all possible efforts have been made to discover it, is presumed, after the expiration of four years, to be dead. His property, if he had any, is distributed among the heirs he had at the date of his disappearance, and his widow may remarry. But should he ever reappear he may demand the rescission of the decree which declared him dead; his property still existing in the hands of the heirs must be returned to him, and his wife's second marriage becomes null and void. A person who takes monastic vows inflicts on himself or herself civil death; but if the vows are made void by papal rescript the person recovers civil life; but cannot recover the property he or she possessed prior to the civil death.

A betrothal, or a promise of marriage, the law looks upon as a private affair, which is left wholly to individual honor or conscience, and has no effect whatever in civil law. This promise may not be pleaded as ground to demand the solemnization of the marriage or indemnity for damages. However, the restoration of presents may be demanded; and in the event of seduction, which the law looks upon as a crime, the contract of betrothal may be admitted as an aggravating circumstance.

Marriage in Chili is a solemn contract by which a man and a woman, actually and indissolubly and for their natural lives, become united, for the purposes of living together, procreating, and helping one another. Civil law formerly recognized as impediments to marriage those which the Roman catholic church considered such; and the decision therefore was left to the ecclesiastical court. But all this has been changed by later provisions of law, under which civil marriage is declared to be the only legal one; the ecclesiastical authority has no longer any jurisdiction in such matters, recognized by

the civil government or courts. Marriage between persons related by affinity in any degree of the direct line will have no civil effects. Minors cannot marry without the consent of their parents or guardians. A person is a minor who is under twenty-five years of age. Persons over twenty-one years of age can demand, before the proper court, the reason why consent is refused. A guardian who refuses consent must make known his reasons. The following would justify his action: 1st, the existence of a legal impediment; 2d, failure to comply with any of the provisions regarding second marriages; 3d, serious danger to the minor's health, or of the offspring that may be born of the union; 4th, licentious life, immoderate passion for gambling, habitual inebriety of the person whom the minor wishes to marry; 5th the fact of that person having been sentenced to a degrading penalty, such as pillory, or four years' imprisonment or chain gang; 6th, if neither of the parties possesses means to support themselves. A minor who marries without having duly obtained the necessary consent may be disinherited. Such person also forfeits other rights. A guardian of a woman under twenty-five years of age cannot marry her until he has accounted for her property, and his accounts have been judicially approved. His lineal descendants are also forbidden to contract marriage with his male or female ward, until his accounts for their estates are settled. A marriage contracted in a foreign country conforming to the laws of that country, or to the Chilian laws, will have in Chili the same civil effects as if performed in Chilian territory. However, if a Chilian man or woman contracts marriage in a foreign country, contravening in any manner Chilian laws, the contravention will have in Chili the same civil effects as if committed in Chili. A marriage dissolved in a foreign country, agreeably to the laws of that country, but which could not have been dissolved under Chilian law, does not capacitate either of the consorts to marry in Chili while the other consort is still living. A marriage which according to the laws of the country where it was celebrated, may be dissolved therein, cannot, however, be dissolved in Chili but in conformity with the Chilian laws. A void marriage, if celebrated with all the solemnities required by law, produces the same civil effects as a valid one as regards the consort who in good faith, and with just cause of error, entered into it; but when good faith is lacking in both consorts, it will have no civil effects. Marriage is dissolved only by the death of one of the consorts. The husband owes protection to his wife, and the wife obedience to her husband. The husband has full authority over the person and estate of his wife; he has the right to compel her to live with him, and to follow him wheresoever he may reside. This right ceases if its execution would place in imminent danger the wife's health. She has the right of being received by the husband at his home, to be supported by him, to the best of his ability, and she is bound to support him if he has no means. There is a conjugal partnership between the husband and wife as respects property. Those who married in a foreign country, and came to be domiciled in Chili, will be looked upon as separated in regard to property, provided that in conformity with the laws under which they were married, there was no copartnership in property between them. A wife cannot appear in court by herself or proxy, without her husband's express assent, except when summoned by the police, or as a defendant in a criminal cause, or as a plaintiff or defendant in suits between herself and her husband. The wife can neither make or unmake any contract without the express written consent of her husband; nor remit a debt, accept or refuse a gift, inheritance or legacy, nor acquire title, sell, mortgage, or pawn. The husband's consent may be taken for granted in a few cases. She can make her will without his consent, but the effects of the will must be after her death. An authorization by a husband, general or especial, may be revoked by him at his pleasure. He may ratify acts of his wife done without his authorization. The ratification may be merely tacit. The consent unreasonably refused by the husband, or in his absence, may in certain cases be granted by the proper court. Neither the wife, nor the husband, nor both together, can sell or mortgage the wife's real estate, but in the cases and with the formalities presented by the law regarding conjugal copartnerships. For a husband of less than twenty-one years of age a guardian must be appointed to manage the property. There are exceptions or modifications to the aforesaid rules, for the following causes: 1st, when the wife exercises a profession, industry, or trade: 2d, separation of property; 3d, perpetual divorce. This last point is the most important and calls for elucidation. There is no full divorce or dissolution of the marriage tie: there may be separation for life. The adjudication of divorce cases belongs to the civil courts. The civil effects of divorce, (that is,

what concerns the property of the consorts, their personal liberty, the rearing and education of their offspring) are regulated exclusively by the civil laws and courts. The residence and alimony, and court expenses, which the husband must allow the wife during the pendency of the suit for divorce, will be regulated and decreed by the civil court. If the wife committed adultery, and thereby gave cause for the divorce, she forfeits all right to share in the community property; and the husband will continue to have the administration and usufruct of her personal estate, except that portion which she herself administers as separated from the conjugal copartnership, and that which may come to her after the divorce was decreed. The husband who gave cause for the divorce is bound to allow his wife a proper and decent support; the court will regulate the amount. Even though the wife was the guilty party, she is entitled to support. If she has property and her husband is poor, she is bound to support him, even if he was the cause of the divorce; the court, in fixing the amount, will look into the husband's conduct. In this matter of property the law gives the court much latitude. If the parties become reconciled the court will restore matters to the state they were in before the divorce proceedings were instituted. Offspring may have been conceived in wedlock, and born during the marriage, or after the father's death; those are legitimate and born in wedlock; or legitimated by a marriage subsequent to the conception; putative marriage is not all-sufficent to legitimate children that were conceived before. Children conceived in adultery cannot be legitimated by the subsequent marriage of their parents, even though one of these was ignorant at the time of the conception of the fact that the other party was married; or even when one of the parents, who at the time of the conception was married, then believed in good faith, and with just cause of error, that the previous marriage did not exist. A husband may protest against the legitimacy of a child born before the expiration of 180 days from the date of the marriage; by proving that he was unable to have access to the mother during the whole time within which the conception could be presumed according to legal rules. But he cannot refuse to acknowledge the child if he knew at the time of marrying of the pregnacy. Natural children are ipso facto legitimated by the marriage of the parents to each other. Illegitimate children who do not obtain the spontaneous recognition of their father or mother are allowed no other right than that of asking for alimony; and to obtain this they are not permitted to plead, but must obtain the father's confession. The French and other codes are still more severe than this, for they forbid even an investigation as to the paternity. A natural child, that is to say, one born of unmarried parents, may be recognized by the father or mother; but this recognition must be free and spontaneous on his or her part, and it may be effected either by public deed, or in a last will and testament; the parent giving the recognition cannot be compelled to state who the other was. A natural offspring is entitled to support, care, and education from the parent who made the recognition.

Alimony is due to the consort; to legitimate descendants; to natural children, and their legitimate posterity; to natural parents; to illegitimate children; to the illegitimate mother; to the legitimate brothers and sisters; to the person who made a valuable gift, if the latter was never rescinded or revoked; to the ex-religious, who by having left the cloister, has not had restored to him the property which, by his civil death, went into other hands, and but for his religious profession, would have belonged to him.

Last will and testament executed in a foreign country. A last will granted in a foreign country is valid in Chili, if in regard to the solemnities, it is made to appear that it is executed according to the laws of that country, and if the authenticity of the instrument is established in the ordinary form. The last testament executed in a foreign country will be valid in Chili, if the following requisites concur: 1st, None but a Chilian, or a foreigner domiciled in Chili can thus execute a will. This will can be authenticated only by a minister plenipotentiary, a chargé d'affairs, a secretary of legation duly appointed as such by the president of the republic, or a consul having a commission issued by the same chief magistrate; but not a vice-consul. Especial mention must be made of the office, and of the appointment or commission. In all other respects must be observed the formalities of a last will or testament executed in Chili. The instrument must bear the seal of the legation or consulate; when not authenticated by the chief of a legation, it must have his visa; if an open will, at foot; if sealed, on its cover: an open will must have the rúbrica or scroll of the authenticating officer at the head and end of each page. The chief of the legation will forthwith transmit a copy of the open will, or of the cover of the sealed one, to the minister of foreign affairs of Chili, who,

after authenticating the signature of the chief of the legation, will forward it to the judge of the last place of domicile of the deceased in Chili, in order that the same be filed in the office of a notary of the said domicile. If the testator's domicile in Chili is unknown, then the minister of foreign relations will transmit it to a judge in Santiago to be filed in some notarial office. Forcible allowances are those which the testator is obliged by law to make, and which are carried out even if he fails to make them in his last will; they are as follows: the alimony which accrues by law to certain persons; the conjugal portion; legitimas, or portions which by law belong to certain persons; the fourth of preference in the succession of the legitimate descendants. The alimony which the deceased was bound by law to pay to certain persons is a burden on the whole estate, unless the testator lays it on one of the heirs. The illegitimate offspring recognized as such in the will can claim from the heirs the support that the testator would have been bound to allow in his lifetime, but without retroacting effect. This must be understood to be, unless the testator formally recognizes him or her with the intention of bestowing on him or her the rights of a natural son or daughter. The conjugal portion is that part of the patrimony of a deceased person which the law assigns to the surviving consort for his or her proper support. The amount is one fourth of the estate of the deceased, in all the orders of succession, except that of the legitimate descendants. If there are such descendants, the widower or widow is counted among the legitimate offspring, and receives as conjugal portion a full share. The following heirs are "legitimarios" or heirs at law; 1st, the legitimate sons and daughters, personally, or represented by their legitimate descendants; 2d legitimate ascendants; 3d, the natural sons and daughters, personally, or represented by their legitimate descendants; 4th, natural parents. Legitimarios concur, and are excluded and represented according to the order and rules of the intestate succession. One half of the estate, after all deductions and additions in law have been made, will be divided by heads or origin among the respective legitimarios, according to the rules of the intestate succession; what accrues to each one in that division will be exactly his legitimate portion. There being no legitimate descendants with right of succession, the remaining half is the portion of the estate which the deceased could dispose of at his pleasure. If there are legitimate descendants, the whole estate, all deductions and additions in law being first made, will be divided into four equal parts; two of them, or be it one half of the inheritance for the "legitimas rigorosas," or portions strictly accruing to heirs at law; another fourth, for the "mejoras," or extra allowances with which the deceased may have willed to favor one or more of his legitimate descendants, whether they be "legitimarios" or not; and another fourth that he was at liberty to dispose of at his pleasure. A descendant cannot be disinherited but for the following causes: having inflicted a grave offense on the testator in his person, honor, or estate, of his or her consort, or any of his legitimate ascendants on descendants; not having afforded aid to the testator or testatrix when in insanity or destitution; having made use of force or fraud to prevent him or her from executing a last will and testament; having married without the consent of an ascendant, or a court, he or she being bound to obtain it; having committed a crime for which the party was sentenced to suffer a degrading penalty, such as public shame, or imprisonment for four years etc.; or for having adopted a life of vice, or engaged in infamous business; unless it is proved that the testator failed to look after the education of the disinherited descendant. No proof will be required if the disinherited party fails to make his claim within four years from the opening of the succession; or within four years, counted from the day on which his inability to administer, if at the time of the opening of the succession he was incapacitated. The disinherited party is in any case entitled to alimony unless the injury inflicted by him was an atrocious one. (This is old Spanish law, but very rarely carried out, the courts generally finding a means of disallowing the disinheritance.)

Executors. No minor, even if he has been authorized by an especial act, to manage his own affairs, can be an executor; no married woman can act as executrix without the express consent of her husband, or of the court as the case may be; whichever way she exercises the functions she binds only her own estate. A widow acting as the executive of her husband, ceases to be so if she enters into another marriage. Supervening incapacity puts an end to the executorship. The office of executor cannot be delegated, unless the testator expressly authorized it. The executor is responsible for all acts done in his own behalf. If there are several executors, they are responsible jointly and severally, unless the testator exempted them from such responsibility, or that the testator or court divided their duties, and each one limits himself to

those assigned him. The testator may authorize them to act separately, but by this mere authorization they are not exonerated from the joint responsibility. The testator may leave secret and confidential instructions to the executor or to the heir, or to any other person, to invest in one or more licit objects a certain amount out of the portion of the estate which he can dispose of at his pleasure; not exceeding one half of said portion. Such trustee is called "albacea fiduciario," or fiduciary executor. The latter has to take oath that his trust is not intended to transfer any part of the estate to a party incapacitated by law, or to apply it to an unlawful purpose.

On the subject of contracts the law thus provides: In order that a person may contract an obligation toward another by an act or declaration of will, it is necessary that the person be legally capable, and express a free consent; and that the act have a lawful cause, and be intended for a lawful purpose. The insane, those who have not reached the age of puberty, and the deaf and dumb who cannot make themselves understood by writing, are incapable. Their acts do not produce even natural obligations, and admit of no security. Incapable are also the adult minors who have not been authorized to act for themselves; prodigals who have been interdicted from administering their own; married women; the religious and juridical persons. But the incapacity of these five classes is not absolute; their acts may have validity in certain cases and under some respects determined by law. There is an unlawful object in the disposal of things that are not in trade; of rights or privileges that cannot be transferred to another person; of things attached by a judicial decree, unless the judge authorizes it, or the creditor assents to it; of things that are in litigation, unless the judge having cognizance of the matter permits it.

The intent of a contract being clearly known, it must be preferred to the literal meaning of words. However general the terms of a contract may be, they will be applied solely to the matter under contract. The sense in which a clause may produce some effect, must be preferred to that in which it is not possible to produce any effect whatever. In cases where no opposing will appears the construction must be that most in consonance with the nature of the contract. Clauses in common use are presumed, even though not expressed. There are other clauses which are the same as those in the Colombian and other codes. Every obligation may be annulled by mutual consent of parties; it is also wholly or partly annulled for the following reasons: solution or payment; renewal; composition; remission; compensation; confusion; loss of the thing that is due; declaration of nullity, or rescission; the event of the resolutory condition; outlawry.

Assignment of property is a voluntary abandonment by a debtor of all his assets to his creditor or creditors, when in consequence of unavoidable accidents, he finds himself disenabled to pay his debts. The debtor must prove there has been no culpability on his part; otherwise the creditors cannot be obliged to accept it. The assignment comprises all the property, credits, etc., which cannot be attached. The assignment produces the following effects: the debtor is exempted from personal decrees; the debts are extinguished to the amount covered with the assigned effects. If the latter were insufficient, and the debtor afterward acquires property, he is bound to pay the balance. The assignment does not transfer the ownership of the debtor's property to the creditors, but only the former to control it and apply its products to the payment of the claims. The debtor may take all his property back by paying the creditors what he owes them. The assignment being made, the creditors may leave the administration of the property in charge of the debtor, or make such arrangements as a majority of them may agree to. An assignment does not avail the joint or subsidiary co-debtors, nor him who accepted an inheritance from a debtor without the benefit of inventory. The creditor may remit a debt but only when he is in legal condition to do so; if he does it from mere liberality the remission is subject to the formalities provided by law for donations between living persons.

Ordinary administration of the property of a conjugal partnership. The husband is the chief of the conjugal partnership, and as such has the free administration of both the common property and his wife's, subject, however, to the provisions of law, and to the terms he accepted in the marriage contract. The husband is, as regards third parties, the owner of the common property, as if it and his own were but one estate; so that during the existence of the copartnership, creditors may sue against both. Creditors have an action on the wife's property, under a contract entered into by them with the husband, if it is proved that the contract accrued to her benefit, such, for instance, as payment of her debts existing prior to the marriage. Any debt contracted by the wife with the express or tacit authorization of the husband

is, as regards third parties, a debt of the husband, and therefore, of the partnership; the debtor has no action on the wife's estate, but on that of the partnership, as well as on that of the husband. Contracts entered into by husband and wife jointly, or in which the wife binds herself jointly or subsidiarily with the husband, will not avail against the wife's own property unless it was for her especial benefit. The wife by herself alone has no right whatever on the property of the partnership during the existence of the latter. Although the wife in the marriage contract renounced her right to profits, this does not give her the power to receive the income of her own property, inasmuch as it was assigned to the husband toward meeting the common expenses; but with the obligation, on his part, of reserving and restoring the property. This is without prejudice to the right of the divorced wife, or of the wife whose property is entirely separate from the partnership. The husband cannot sell nor mortgage the real estate of his wife, except if so authorized in the matrimonial capitulations; or because of manifest necessity, or benefit to the wife. He may sell other property of the wife upon her mere consent. The husband cannot grant a lease of the country real estate of his wife for more than eight years, nor the town estate for more than five; however, a lease may be for a longer period if the wife voluntarily accedes to it. The wife, who in the event of the husband's interdiction, or of his long absence without communication with his family, may have been appointed guardian of his person or of his property, will ipso facto have the administration of the conjugal copartnership. If she refused the office, or was declared incapable, then the guardian duly appointed will have the administration. The conjugal copartnership becomes dissolved: by the dissolution of the marriage; by the presumed death of one of the partners; by the sentence of divorce for life, or total separation of property; if the separation is a partial one, the partnership will continue on the property not embraced therein; and finally, by the marriage being declared null.

A contract of sale between two consorts not divorced, or between a father and a son who is still under the paternal control, is null and void. The managers of public establishments can sell no part of the property they have in their charge, the disposal of which is not comprised in their ordinary administrative powers; save when empowered therefor by competent authority. A public officer is forbidden to buy public or private property that is sold by or through his office; judges, lawyers, solicitors, or notaries are also forbidden to buy any property in the litigation for which they had any official intervention, or which is sold in consequence of the litigation, even if the sale be at public auction. It is not lawful for guardians to purchase any property belonging to their wards, except under the conditions prescribed by law. A sale is considered perfect when the parties have agreed upon the thing and the price, save the following exceptions: the sale of real estate, "servidumbres" and "censos" and that of hereditary succession, is not perfect in law while not effected through a public instrument of writing legally executed. All things corporeal or incorporeal, the disposal of which is not forbidden by law, may be sold. The sale of property, present or future, or both together, whether in whole or in part, is null; but the sale of all effects, goods, and quantities, designated in a public deed, even though extending to all the seller possesses or expects to acquire, will be valid, provided it does not include illicit articles. Whoever knowingly sold what did not exist must pay damages to the purchaser. The sale of property belonging to another is valid, without prejudice to the rights of the owner of the thing sold, while these rights have not become extinct by lapse of time. A seller is expected to guarantee the quality and title of what he sells, and to warrant and defend it, for the benefit of the purchaser.

A carrier is responsible for all damage that may accrue to the person carried because of the bad condition of the carriage, craft or ship upon which the transportation is effected. The carrier is also answerable for all damage or injury to cargo, unless there was a previous understanding to the contrary, or it is proved that there was a defect in the goods, or that the damage was caused by circumstances entirely beyond the carrier's control. The carrier is also answerable for neglect or improper acts on the part of his agents or servants. He is bound to deliver the person or effects at the place and within the time agreed upon. The price for conveying a woman who gives birth to a child on the journey, cannot be increased on this account, even though the carrier was ignorant of her pregnant condition. If the person or effects are not ready for transportation at the time stipulated, the carrier is entitled to one half the price of passage or transportation. If the failure to be on time is the carrier's he must forfeit one half of the price stipulated. The death of the carrier or passenger does not put an end to the contract; the obligations are transmitted to the respective heirs.

Partnerships. An association forms one juridical person distinct from the members of it, individually considered. In the deliberations of partners entitled to vote, a majority of votes must decide, computed as may be stipulated in the contract, and if there is no stipulation on this point, then the numerical majority shall decide. Exceptions to this rule are cases in which the law or the contract requires unanimity, or gives to each of the partners the right of refusing his assent. Unanimity is necessary for any material amendment of the contract, unless the contract itself provides otherwise. There is no copartnership unless every partner contributes something to the stock, money, or goods, or an industry, service, or labor having a money value. Nor can there be a copartnership without a participation in its benefits; that which is purely moral, having no money value, is not considered a benefit. Associations based on a universal title, whether of present or future property, or both, are prohibited. The same prohibition exists as regards profits associations, based on a universal title, except between consorts. Every kind of property may be contributed, and to any amount, by specifying them. If an association is formed which cannot legally subsist in any form, each member of it will have the right to demand the liquidation of its affairs, and to take away his share. This provision does not apply to associations which are null because of the illicitness of the cause or object, for they will be subject to the criminal code. The nullity of the contract does not bar the action of third parties in good faith against all and every one of the associates for the operations of the company, if it exists de facto. The law of Chili recognizes the three classes of associations, namely, collective, en commandite, and anonymous. Commanditaires or limited partners are forbidden to have their names mentioned in the style of the firm, and to take part in its operations, under the penalty of incurring the same responsibilities as the members of a collective company. In the absence of any express stipulation it will be taken for granted that the division of profits will be in proportion or pro rata of the share of capital of each partner, and the division of losses in the same proportion. In the case of a mere industrial partner, if no stipulation fixes his share of profits, this may be awarded by a court if necessary; if no stipulation fixes his quota of losses it will be understood that he is to bear no other loss than his industry, labor or service. The manager or managers of a company's affairs must adhere strictly to his or their instructions; no obligations are to be contracted, no acquisitions or sales made, but such as are in the line of the company's business. The administrator will care for the preservation, repairs, and improvement of the company's property; but he can neither pawn nor mortgage it nor change its form, even though he may deem the alterations expedient. Whatever he does within the legal bounds, or by especial authorization of the partners, will bind the company; otherwise he will have to bear alone all the responsibility. The administrator is bound to make a report on the company's affairs at such times as are provided for in his general instructions, or at least annually. If the management has not been conferred on one or more partners, then it will be understood that each one is empowered by the others to manage. However, any partner may object to the administrative acts of another, while their execution is pending. No partner can make innovations in the real estate of the company without the consent of the others. A company may be dissolved for various reasons, namely, expiration of its term, or the event of the condition that was prefixed for its coming to an end; the termination of the business for which it was constituted; insolvency and the extinction of the thing or things forming its whole object; failure of any one partner to contribute the share to the company's capital stock; natural or civil death of any one of the partners; same when the company is under the law to continue between the surviving partners and with the heirs of the deceased one; incapacity or insolvency of one of the partners; the unanimous consent of the associates; renunciation of one of the partners, if this is permissible under the terms of the contract, and provided it is not in bad faith; or at a time when his retirement would injure the other partners. A partner who forsakes the company without a formal renunciation, is considered to be acting in bad faith.

Crimes and quasi-crimes. Whoever commits a crime or quasi-crime is bound to indemnify the party or parties he may have damaged; and will incur besides the punishment that the law awards to this crime or quasi-crime. An inebriate is responsible for his offenses. The following persons are in law irresponsible: minors under 7 years of age, and the insane; but the persons in charge of them may be held amendable if wilful neglect can be proved against them. Every person is responsible for the acts of those under their control; the father, and in default of him, the mother, for the

minor children living in the same house; guardians for their wards; the husband is responsible for his wife's conduct; principals of colleges or schools for their pupils; masters for their servants, provided they could have prevented the improper acts. The owner of a building is answerable for injuries caused to third parties for having failed to keep it in repair, etc. As a general rule when any damage suffered by one or more persons, which may be imputed to the malice or negligence of another, the latter is answerable for it. Imputations against the honor or credit of a person give no right to demand a pecuniary indemnity, unless a present or future damage which may be priced in money is actually proved; and even then there is no action for a pecuniary indemnity if the truth of the imputation is established. All claims of this kind become outlawed after the expiration of four years from the date of the imputation. No bond or bail can be uttered by bishops, friars or nuns, the ordained in sacris, unless it be for other churches or for other clergymen, or for helpless persons.

Contracts of mortgage entered into in foreign countries on property situated in Chili will have full effect, provided they are recorded in Chili as the law requires. No mortgage executed by a person incapacitated by law is valid. Mortgages must be on real estate held in fee-simple or in usufruct, or on ships; none others have any validity. Every mortgage must be inscribed as the law directs in the record office called Registro Conservatorio; its effects begin only after such record.

Preferred claims. Any personal obligation gives the creditor a right to levy on the real and personal estate, both present and future, of his debtor, wheresoever the same may be, excepting such as cannot be attached (among the latter are a husband's usufruct or his wife's property); nor can the father of a family attach the property of the offspring, nor can the real rights of use or of habitation be attached, nor the property of a debtor after he has assigned them for the benefit of his creditors; and indeed, the creditors may demand the annulment of any onerous contracts or mortgages obtained from the debtor before the assignment, in bad faith, or when the holder knew that the assignor's affairs were in a bad state. The only grounds for preference are privilege and mortgage. Privileged are all claims of the 1st, 2d and 4th class, namely: court expenses incurred for the benefit of all the creditors; necessary funeral expenses of a debtor; expenses during the debtor's last illness; salaries and wages of employees and servants for the last three months; necessary articles furnished the debtor and his family during the last three months; amounts due the government and the municipality; and several others. Marriages effected in foreign countries which have civil effects in Chili will give to the wife's claims on the estate of the husband existing in Chilian territory, the same right of preference that marriages made in Chili possess. The 3d class are the claims secured by mortgage. The fifth and last having no preference will be paid pro rata from what may remain of the debtor's assets.

Claims become outlawed as follows: after the expiration of three years, the fees of judges, lawyers, solicitors, physicians, and surgeons, principals of colleges or schools, engineers and surveyors, and generally, all those who exercise any liberal profession; in two years the action of dealers, purveyors, and artisans for the price of the articles they furnish at retail; that of employé and servants for their salaries; that of every class for the price of services they render periodically or accidentally; such as innkeepers, carriers, messengers, barbers, etc.; the foregoing prescriptions stand against all classes of persons, and admit of no suspension. The prescription is interrupted by a written note or obligation, or the grant of time by the creditor, and by judicial action.

The system of legislation in the republic of Santo Domingo is based on that of Spain. The same is to be said in regard to Cuba and Porto Rico. Domiciled foreigners are given all the civil rights, and are permitted to freely engage in any lawful occupation, and also to possess, bequeath, and inherit both real and personal property. Marriages contracted abroad by foreigners are recognized and have full civil effects; but the marriages of natives entered into by Dominican citizens and Spanish subjects in foreign countries must conform with the laws and rites of the Roman Catholic church. In Cuba foreigners are no longer required to have passports to enter or leave the island. A certificate from the traveller's

consul at the port of entry will suffice to identify him, and to enable him to visit all the island, stay as long as he pleases, and leave whenever he wishes. In Hayti the French codes are in force.

The British and other foreign colonies in the West Indies follow closely the legislation of the respective mother country.

The short space at my disposal precludes any extensive remarks on the general laws of the United States. The extracts hereinunder appended bear upon questions which may prove interesting, especially to Spanish-American readers. It will be well to remark here that the United States have treaties of commerce and navigation with all nations, and with many of them consular conventions, and also treaties for the extradition of criminals.

Domestic relations:—Marriage. Intermarriages between relatives either by blood or affinity in the ascending or descending lines, are unlawful; not only so, but leading to confusion of rights and duties. As to collaterals, marriages between brothers and sisters are strictly prohibited; but beyond this, the statutes of a state must decide if there is any prohibition, for neither the canon nor the common law prescribes it. Marriage is viewed throughout the United States in the light of a civil contract, which is entered into by parties capable of contracting, and of entering into such relations. The consent of the parties is all that is necessary; no peculiar rites or ceremonies are required, nor the agency of any particular class of men, to make a marriage binding; no ecclesiastic or magistrate's intervention is needed to give it validity; not even an aknowledgment before witnesses; the marriage is inferred from continual cohabitation, and reputation as husband and wife established with their knowledge and assent. In some states, like California, a marriage license is required; a woman under 18 years cannot obtain it without the consent of her parents or guardian; in others, certain things, such as the publication of bans, as required by statute, but in several others the common law has the control. The courts of England and the United States have held that a marriage valid by the laws of the place where it is made is to be considered as valid everywhere, even by the laws of the state of which it was itself an evasion. This, though contrary to general principles of law applicable to other contracts, rests on grounds of policy peculiar to itself, with the view of preventing the disastrous consequences which would result from holding such marriages void. In marriage the wife is merged in the husband; her legal existence ceases; though in equity, for certain purposes, the wife's capacity is kept alive, but the common law deprives her of all original power or authority. Immediately after marriage the husband becomes seized of a life estate in, and entitled to all the rents and profits of her real estate during their joint lives; if during the marriage union she have issue by him capable of inheriting, he becomes entitled, as tenant by the courtesy, to all such rents and profits during his natural life. All her personal property and chattels really vest in, and become the property of the husband. All her things become, under the common law his as much as if he had inherited, or purchased and paid for them. He can apply to the courts to recover all things in action that she had before her marriage to him. His liabilities are also peculiar. He is liable, during her life, to discharge all her debts and obligations at the time of the marriage, whether he received with her any property or not; on the other hand, by her death he becomes released of all such obligations, though he may have received with her ten times sufficient to pay all her debts, and they all remain unpaid. The husband is bound to provide his wife with the necessaries suitable to her situation, and his condition in life; she may contract debts for that purpose, which he is liable to pay, but he is not amenable for any thing beyond. If a wife elopes, even though not an adulteress, the husband is not bound to provide for her maintenance; but if after the elopement the wife repents and returns, the husband will be bound for her necessaries, unless she has committed adultery. The wife may have separate property, in regard to which she is regarded as *sole* or unmarried. She may also make contracts in regard to such property, which may be enforced in equity. A creditor may proceed in rem, or against this estate, not against herself, by showing, either that the debt was contracted for the benefit of the said estate, or for her own benefit upon the credit of the separate estate.

Husband and wife cannot testify against each other in a civil suit. Neither can they be witnesses against each other in criminal prosecutions, or criminal complaints, except that the wife may make affidavit against the husband in case of threatened, or apprehended, or actual violence. Her declarations against him will be valid if it be proved that she is acting as his agent; in this capacity she may bind the husband by her contract. The husband is bound to support and protect the wife, while on the other hand, the law gives him control over her person, so that he may even put some restraints on her liberty, if her conduct be such as to require it. In late years, however, the tendency of the laws has been to emancipate the wife, and give her full control of her property and earnings. In the state of New York certain acts of 1848 and 1849 have vested married women with all the rights of single women as to the ownership of property that they might inherit, or which might descend to them by devise or bequest, or which might be given them by any persons other than their husbands. By an act of 1859 the wife's earnings are also made hers; so that she now holds, in regard to property and its rights, an independent status.

Divorce. In the matter of divorces the most difficult and complicated cases are those obtained abroad. The principle seems to be admitted that divorces regularly obtained in the courts of the state or country where the parties were regularly married or domiciled are valid everywhere. A party domiciled in one state, and going into another, and there obtaining a divorce in fraud of the laws of the state of his domicile, would not be permitted to avail himself of such divorce in the latter state. Divorces are obtained with greater ease in some states than in others. There are several causes which authorize the dissolution of the marriage tie; these causes are different in the different states. The civil disabilities are, a prior marriage, or idiocy, which renders the contract void, *ab initio*. In New York they are the non-attainment of the age of legal consent; a former marriage still in force; idiocy or lunacy of one of the parties; the obtaining of consent by force or fraud; and physical incapacity. These, existing at the time the marriage was formed, annul the contract ab initio; adultery authorizes a divorce *a vinculo*; but neither party can obtain a divorce for this cause if the other recriminates, and can prove the commission of a similar offence. The effect of a divorce is to suspend, either indefinitely, or for a limited time, the marital relations, and to decree a separation of bed and board, generally with a provision for the wife's support. The most usual causes upon which the decree is granted are cruel and inhuman treatment on the part of the husband.

Minors:—In law a person under 21 years of age is an infant. His contracts can have no value, except in certain cases where it may be proved of especial benefit to him; thus, he is bound by contracts made by him for actual necessaries of life, including clothing, victuals, medical aid, and "good teaching or instruction, whereby he may profit afterwards"; he is bound only for their real value; therefore, it is the implied, and not the real contract which forms the ground of the liability. A minor is not liable for a promissory note, or money borrowed, even though the amount of either, or both, may have been applied to the procurement of necessaries. The seller should, before trusting, ascertain whether the minor is not furnished by his friends, or whether he lives with his father or guardian, who cares for and protects him. However, necessaries for the infant's wife and children are considered necessaries for him. Minors are liable for damages they inflict on others, through tortious, wrongful, or fraudulent acts; for trespass, assault, constructive torts, trover, or wrongful conversion of property, and for fraudulently obtaining goods; where goods may have been obtained by the minor by false pretenses, he may avoid the payment of the price, by setting up his legal disability, but the owner may reclaim his goods, on the ground that he had not parted with his title to them. A minor may do many other acts valid in law; he may convey real estate as a trustee, discharge a mortgage on payment, act as an executor; if a male at 14, and, if a female at 12, may enter into a valid contract of marriage, but his contract should be executed; a mere contract to marry would not render the infant liable, though an infant may hold an adult on such a promise. The general rule is that whatever the law binds an infant to do, will be binding upon him or her if it was done voluntarily without any compulsory process. All business contracts entered into by a minor will be held by the courts void if they are manifestly to the minor's prejudice; those good which are for his benefit, and those voidable at his choice which are uncertain as to their effects. In a minor's contract considered void, the proper way is for him, after completing 21 years of age, to positively affirm, or disavow it. In a case where a minor sold a piece of real estate, after the lapse of 18 years without the contract being

impeached, the court held that although the sale was originally voidable, it had been impliedly affirmed by the seller after he became of full age.

Commerce and trade:—Questions arising from mercantile contracts are decided by the the law merchant, which has been defined by some as synonymous with the law of merchants, but is rather the system of law applied by the courts to such contracts: the chief subjects embraced in the system are the laws bearing upon shipping, including marine insurance; negotiable bills of exchange and promissory notes; and sales. The basis of the law-merchant, is the custom of merchants, and when the courts are uncertain as to what it is, they will hear arguments, and listen to citations of competent and pertinent authority, that is to say, of merchants, to ascertain the existence or character of the customs which compose it; precisely the same as they would upon any other question of law. A rule of the law-merchant has the same force as any other rule of law. Mercantile pursuits being almost entirely confined to personal property, which, as contradistinguished from real property, is that which is movable, which passes by delivery, descends to the next of kin under the statute of distributions, is subjected to the lien of an execution, and not of a judgment against its owner; and on the sale by its possessor there is always an implied warranty of title. The more important division, in a mercantile point of view, of personal property is into things in possession, and things in action. Within the first division is a merchant's stock in trade, and the money equivalent he receives for it on its sale. In the second division are included the charges in his books of accounts, bonds, bills, promissory notes or other securities received by him from a purchaser. Things in action are not assignable, so that the assignee can sue for and recover for them in his own name. An exception to this rule is negotiable paper, which, if payable to bearer, may be transferred by delivery, and if to order, by endorsment. Personal property can never be made inalienable. It is always subject to the contingencies of trade. In the transfer of personal property the rule is that the vendor does not convey to the vendee more right or title to the thing sold than he himself possesses. Personal property possessing a mercantile character, includes shipping, good will, and negotiable paper; the first needs no particular remarks upon here. Good will on the dissolution of a partnership consists in "the probability that the old customers will resort to the old place." An interest analogous to good will is the particular name or mark in goods and merchandise, usually known as "trade marks." A merchant or manufacturer is not allowed to use the name or trade mark of another, even though in ignorance of the fact. An exact similarity in the marks is not required by the courts; so close a resemblance that it may deceive the public and draw away customers, is enough. In the transfer of negotiable paper the vendee or holder takes it on the credit of what its face shows, and not upon the faith of its possessor's title. His right and title to recover admits of no doubt.

A contract by which a person, even for a consideration, precludes himself from trading in general, or from carrying on any particular trade, is null in law. A merchant may, however, sell to another his right to carry on trade within certain defined limits. An alien friend, that is to say, the subject or citizen of a country at peace with the United States, has no restrictions to essentially impair his right to carry on trade: he can buy and sell personal property. The subject or citizen of a country at war, though a resident in the United States, would be permitted by courtesy to sue and be sued as in time of peace, but would find many obstacles to carry on trade.

A minor, as stated before, has legal disability, but his acts and transactions may be ratified and validated after he attains majority. Marriage on the part of a woman incapacitates her, at common law, to do anything that may be legally binding; no subsequent ratification will have that effect. However, it has been shown that in New York and other states, a married woman may not only receive and hold personal property, but also trade and carry on any branch of business.

Partnerships:—Partnerships, in order to be legal, must involve profit as an element. Participation in the profits, to constitue a partnership, must be a sharing in them as a principal, not as an agent or servant. Partnership may be formed in three ways: by articles executed and delivered, verbal agreement, and acts of the parties: the mutual assent of all the partners is essential. Joint Stock Companies are very common in the United States. The management of the affairs of such companies is entrusted to the directors and their agents. Each member of a company is entitled to all the benefits of its contracts, and responsible for the acts of its agents; but not for contracts made prior to the commencement of the company. Without special power no one member can bind the others by negotiable instruments. The legislation of

the State of New York recognizes Limited Partnerships, consisting of one or more persons who are the real ostensible partners, as well as the active business parties in the concern, having also the liability of ordinary partners, while one or more are permitted to put in a certain capital, whose liability is limited to the sum actually contributed. This class of partners are what in French are called Commanditaires, and in Spanish Comanditarios. Their names must not appear in the firm, nor are they to transact any business for account of the company. Any intervention on the part of a limited partner in the affairs of the concern renders him liable as a general partner. There are three kinds of partners, viz: nominal, that is one who without being an actual partner, assumes the responsibility of one by voluntarily allowing his name to appear as such, thus lending his credit to the partnership; real, ostensible partner, is one who appears as one to the world, and partakes of all its benefits and risks; dormant, or concealed, is a real partner as to actual participation in the benefits of the concern, but whoendeavors to avoid its risks and liabilities by keeping the fact of his interest concealed. His name does not appear in the firm; before the world he is one who takes no interest in its affairs. He enjoys the benefit of the general partner without encountering his trouble and risk. As long as he remains concealed he escapes liability to the creditors of the partnership, but if detected, he becomes equally liable with the ostensible partners. In addition to those three is the limited partner created by legislation.

Negotiable paper:—Under this name is included all paper which may be the subject of sale or transfer by mere delivery or endorsment. There are three kinds: promissory note, which is an obligation by the maker or makers to pay jointly or severally to a person or corporation on a given date the amount set forth in the document; this may be endorsed by the holder, with or without responsibility; check, is a mere order on a bank to pay a certain amount to the bearer of it; it is always payable immediately on presentation, and without days of grace; and is not presentable for acceptance but only for payment. Bills of exchange may be either foreign or inland; the former is drawn in one country and made payable in another; the inland is drawn and made payable in the same country. The parties who are primarily liable, who are the real debtors to the payee, endorsee, or holder, are the acceptor and the maker of the bill; after them come those who are secondarily liable, whose responsibility is contingent on the failure of the acceptor or maker to pay the note, who are the endorser and the drawer; the latter are discharged entirely if the holder fails to make the proper demand of payment, and to give the required notice in case of non-payment. There is another division which is the business or accommodation note. A business note is one given for value received; an accommodation note is one given where no debt is due. but simply to enable the party to whom it is given to sustain his credit, or to raise money on it. The holder of a bill of exchange having obtained the acceptance of the drawee, either absolute or conditional, or in case of his refusal, that of some other *supra protest*, has nothing further to do but to wait until the bill becomes due; then he must present it for payment on the day of maturity; a failure to make the demand of payment impairs the holder's right against the chief debtor, but the necessity grows out of relations existing between drawer and endorsers on the one side and the holder on the other: the undertaking of the drawer and endorsers being contingent on the failure to pay of the maker or acceptor. If a certain period is fixed for the payment, as for instance thirty days after date, the day of the date is excluded from the calculation: if the word month or months is used, then it is the calendar and not the lunar month. Days of grace are three days added to the time at which the paper would otherwise fall due. In such cases the paper is really payable on the third day after, the day on which it would otherwise fall due being excluded. Thus if the bill became due on the tenth day of the month, it is not demandable until the thirteenth. Then days of grace are not allowable on the paper to be paid on demand, or where no time of payment is expressed, or where it is payable immediately on presentation; they are allowable in some places, however, where bills are payable at sight; in New York and other states it is not. If the last day of grace falls on a Sunday or a great national holiday, then the demand for payment must be made on the preceding day; a demand made the day previous or subsequent, and not on the very day when the bill is due, destroys all remedy against the drawer and endorsers; the acceptor must be allowed the whole day on which the bill is payable to effect the payment; any suit instituted on that day would be premature. Where payments are made in banks, the day is considered closed at the close of banking hours; the holder should immediately after hand the bill to a notary to protest for non-payment.

If the drawee failed to accept the bill because he had no funds of the maker or for whatever reason, the holder will apply to a notary forthwith to have the bill protested for non-acceptance; this has reference only to foreign bills; but a bill drawn in one state of the Union and made payable in another, is considered foreign. There are instances in which prior parties may be held responsible to the holder without receiving any notice of the non-acceptance of a bill, viz: if an endorser united with the drawer in deceiving the holder, representing that the bill would be accepted, when he knew it would not be.

Sureties. A debt must become due and remain unpaid to give the creditor the right of resort to the surety. The creditor is entitled to all the securities given him by the principal debtor; also in equity to the benefit of those the principal debtor gave by way of security to his surety; where the principal debtor assigns his effects to trustees for the benefit of his creditors pro rata, and owes a debt for a portion of which a surety is liable, and for a portion of which he is not, the rule is to apply the dividends ratably to the whole debt, including both the guaranteed and unguaranted portions.

Liens. A lien is an encumbrance resting upon a thing till some charge upon it has been paid. It does not prevent the party from enforcing at law, by suit or otherwise, the collection of his debt. The following persons are entitled to a lien at common law; bailees, who perform service upon the thing put into their hands at the request of the bailor; hotel-keepers, upon the baggage of their guests, for the amount properly charged for accommodations; common carriers upon land and water, on the goods which they carry, for the amount due for freight; vendors, or sellers of goods, for the price upon goods sold without credits; agents or factors, on the goods of their principals, for advancements made for their benefit; at common law, ship-builders upon the ship while she is in their possession. In addition to the above, in most of the states, provision has been made for securing to mechanics, their wages; and to those who furnish the materials for a building their pay. A lien generally expires in a limited time—30, 60, or 90 days—unless it be enforced by proper proceedings.

Bankruptcy. The congress of the United States is the only power in the country authorized, under the national constitution, to enact a bankrupt law having force throughout the union. Laws passed by the several states on the subject are suspended while the general bankruptcy law of the United States is in force. The existing law took effect on the 1st of June, 1867, and covers the whole ground of bankruptcy and insolvency. It applies to all debtors, whether traders or not, and to the debtors petitioning the federal district courts for its benefits, as well as to those proceeded against by creditors. Any one owing $300 may petition; and any such debtor, who has committed certain specified acts, may be adjudged bankrupt *in invitum*. The acts of bankruptcy are substantially alike in all such statutes in England and the United States, and tend to establish either fraudulent conduct or hopeless insolvency, such as concealing property, conveying it fraudulently, leaving the district with intent to defraud creditors, lying in prison for twenty-one days. The law declares a merchant, trader, banker, broker, manufacturer, or miner bankrupt whose commercial paper remains overdue and unpaid for forty days. Merchants and tradesmen are required, under pain of being denied their discharge, to keep proper books of accounts.

Under the law of 1867 and its amendments, the assignee or assignees of the creditors can avoid all advantages given to pre-existing creditors within four months (in involuntary cases, within two months) before the filing of the petition if the bankrupt was then insolvent, and intended a preference, and the preferred creditor knew the insolvency and the intent, no matter what pressure, by suit, threat, or otherwise, may have been brought to bear upon the debtor.

The debtor is granted or refused absolutely his discharge by the court. In voluntary bankruptcy, thirty per cent must be paid in dividends; otherwise the consent of one-fourth in number and one-third in value of the creditors must be obtained by the debtor. Any creditor may oppose the granting of the discharge for fraud committed or continued within six months before the petition; for loss by gambling; and, in the case of merchants and tradesmen, for failing to keep proper account-books. A decree of discharge may be reviewed within two years by the court that issued it, upon evidence afterward discovered. The law was greatly modified in 1874 in the interest of debtors; it makes adjudications *in invitum* more difficult and discharges more easy; nevertheless, creditors like the law because it imposes serious checks upon local preferences. Lawyers and judges who have to do with its administration also give it their approval.

Interest Laws in the United States.

Compiled from the latest State and Territorial Statutes.

Laws of each State and Territory regarding Rates of Interest and Penalties for Usury, with the Law or Custom as to Days of Grace on Notes and Drafts.

States and Territories.	Legal Rate of Inter'st	Rate Allowed by Contract	Penalties for Usury.	Grace or No Grace
	p.cent	per cent.		
Alabama	8	8	Forfeiture of entire interest	Grace
Arizona	10	Any rate	None	Grace
Arkansas	6	10	Forft. of principal and interest	Grace
California	7	Any rate	None	No Grace
Colorado	10	Any rate	None	Grace
Connecticut	6	6	None	Grace
Dakota	7	12	Forfeiture of excess	Grace
Delaware	6	6	Forfeiture of principal	Grace
Dist. of Columbia	6	10	Forfeiture of entire interest	Grace
Florida	8	Any rate	None	Grace
Georgia	7	8	Forfeiture of excess	Grace
Idaho	10	18	Forfeit of 3 times excess of int.	Grace
Illinois	6	8	Forfeiture of entire interest	Grace
Indiana	6	8	Forfeiture of excess of interest	Grace
Iowa	6	10	Forfeit. 10 p.c. per yr. on amnt	Grace
Kansas	7	12	Forfeiture of excess of interest	Grace
Kentucky	6	6	Forfeiture of excess over 1) p.c.	Grace
Louisiana	5	8	Forfeiture of entire interest	Grace
Maine	6	Any rate	None	Grace
Maryland	6	6	Forfeiture of excess of interest	Grace
Massachusetts	6	Any rate	None	Grace
Michigan	7	10	Forfeiture of excess of interest	Grace
Msnnesota	7	10	Forfeiture of excess	Grace
Mississippi	6	10	Forfeiture of all the interest	Grace
Missouri	6	10	Forfeiture of entire interest	Grace
Montana	10	Any rate	None	No Grace
Nebraska	7	10	Forfeiture of interest and cost	Grace
Nevada	10	Any rate	None	Grace
New Hampshire	6	6	Forfeiture of thrice the excess	Grace
New Jersey	6	6	Forfeiture of entire interest	Grace
New Mexico	6	12	None	No Grace
New York*	6	6	Forfeiture of principal and int.	Grace
North Carolina	6	8	Forfeiture of entire interest	Grace
Ohio	6	8	Forfeiture of excess	Grace
Oregon	8	10	Forfeiture of principal and int.	Grace
Pennsylvania	6	6	Forfeiture of excess of interest	Grace
Rhode Island	6	Any rate	None	Grace
South Carolina	7	10	Forfeiture of double the excess	Grace
Tennessee	6	6	Forfeiture of excess of interest	Grace
Texas	8	12	Forfeiture of entire interest	Grace
Utah	10	Any rate	None	No Grace
Vermont	6	6	Forfeiture of excess of interest	Grace
Virginia	6	6	Forfeiture of excess over 6 p.c.	Grace
Washington Ter.	10	Any rate	None	.....
West Virginia	6	6	Forfeiture of excess of interest	Grace
Wisconsin	7	10	Forfeiture of entire interest	Grace
Wyoming	12	Any rate	None	Grace

Shipping. A ship may be owned by a single person, by several persons, or by a stock company. The owner may employ the ship in carrying his own goods, or those of other persons, retaining the possession and direction of the ship, or he may let her to others. In one case she carries the goods on freight; in the other she is subject to a charter party. In the latter case only the bur-

* By an amendment of the law New York has legalized any rate of interest upon call loans of $5,000 or upward, on collateral security.

den of the ship is generally let, the owner keeping the possession of her, providing officers and crew, supplying repairs and carrying out the stipulations of the charter; but sometimes the owner lets his ship as he would let a house, and the charterer then takes full control.

When goods are carried on freight, the rights and obligations of the shipowner and shipper are expressed in the bill of lading, the form of which is about the same in all commercial nations. This document contains the names of the consignor and consignee of the goods, of the master, and ports of departure and destination; the price to be paid as freight, with primage and other charges if there should be any, and usually on the margin are set forth, the marks and numbers of the merchandise shipped. It should be signed by the master; in the case of steamships bills of lading are usually signed by the purser.

No freight is earned unless the whole is earned by carrying the goods quite to their destination. The goods must be delivered according to the bill of lading in good conditfon, excepting the dangers of the seas, and such other risks or perils as may be stated. Damage caused to the goods by one of the excepted risks falls upon the shipper or consignor. If goods are lost in substance by reason of injury caused by a peril of the sea, such as sugar being washed out of hogsheads or boxes, or wine leaking out of the casks, though the master may deliver the boxes or casks, this is not a delivery of the sugar or wine, and, therefore, no freight has been earned. But if the injury resulted from causes inherent in the goods themselves, freight must be paid. If damage or deterioration was caused by bad stowage or other fault of the ship, freight is due, after deducting the amount of the damage. As to passage money of passengers, the money is not earned except by carrying them to their destination, and, if paid in advance, must be returned entire if they have not been conveyed any distance, or a *pro rata* of it, if they were carried part of the way with their consent.

A charter party should designate particularly the ship and master and the parties; the ship's tonnage and capacity should be expressed, as well as the parts of her which are let, and the voyage or period of time. The instrument should likewise set forth the lay days, demurrage, and every other particular of the bargain. Lay days are those allowed the charterer for loading and unloading; for any excess of time demurrage must be paid at the stipulated sum per day. There is generally speaking no claim for demurrage must be paid at the stipulated sum per day. There is generally speaking no claim for demurrage in the charter for delays caused by the elements, such as ice, tide, or storms, or by acts of governments, or by any disability of the consignee which cannot be attributed to his own act or to his own wrongful neglect. A charter party may be cancelled by mutual consent, or without the consent of the parties to it, by any circumstance which makes it illegal, like a declaration of war, embargo, or blockade.

The master of the ship has the exclusive management of her, as the owner's agent; but he is to some extent the agent also of the shipper, and of the insurer. In case of accidents he is bound to look out for the interests of all concerned. Should a necessity arise he may sell the cargo or a portion of it, at an intermediate port, if he cannot carry it or transmit it, and it must perish before he can receive specific orders respecting its disposal. He may pledge it for money borrowed, by means of a respondentia bond, the same as he can pledge the ship by a bottomry bond. The pledge on the goods is discharged if the goods perish.

In many countries vessels are required to take pilots to enter and go out of their ports, or pay the prescribed fees even if the services are declined. If a ship refuses to take a pilot when she can and should do so, her owner will be answerable to the shipper for any damage that may result from such neglect or refusal. The pilot, once on the ship's deck, has control of her; but this does not clear the master of the duty to assume control if he finds the pilot ignorant or incapable of taking the ship in or out of port safely.

Insurance in law is a contract by which an insurer binds himself for a consideration, which is generally called *premium*, to insure another party against an actual loss or injury to the property described in the written instrument, which in mercantile parlance is known as *policy of insurance*. Insurance is usually of three classes, namely: Marine insurance, insurance against fire, and life insurance. Marine insurance is that of maritime property against maritime perils. Fire insurance is that of houses or stores, or goods against destruction or injury by fire, or as the consequence of a fire. Life insurance is a contract by which the insurer engages to pay the legal heirs of an insured party, for a yearly premium punctually paid by the latter, the amount of

money agreed upon at the death of the insured. There are other classes, such as insurance against accidents, or against robbery, which need not be treated of here; the former is properly a branch of life insurance.

First as to marine insurance. A merchant by the payment of a trifling portion of his profits, a portion so small that under ordinary circumstances, it cannot inconvenience him, secures protection against a loss which might cause his ruin, or at least cripple him. He may never experience a loss, total or partial, but he feels safer, and by what he pays contributes to swell the funds out of which the less fortunate may be indemnified. Under this arrangement trade is encouraged and developed, and enterprises are entered into under its safeguard, which otherwise it would be rash to undertake. Losses paid by insurers must come out of the aggregate of premiums; without such a resource the insurance business would come to an end. The premium must be higher as the risk increases; but it must not go beyond a certain limit, such as prudent men, who have their ships in good order and well conditioned, would feel justified in paying. Otherwise, such men will prefer to run the risk of loss and not insure. Insurance properly directed is a great help to and intended for the benefit of honest trade. At the present time the business of insurance is carried on by incorporated companies, of which there are two kinds: namely, stock companies, in which the stockholders receive by way of dividends, the profits, that is to say, the year's excess of premiums over losses and expenses; and mutual companies, where the profits (after deducting the expenses of transacting the business) are divided among the insured, or so applied to reduce the premiums, that each party insured only pays the equivalent of his actual risk. Some of these mutual insurance companies have also a certain amount of capital stock as a basis for the business.

The following are in a condensed form the leading principles of marine insurance: The contract, though it might, in some cases, be binding, if merely verbal, should be in writing. In the United States it seems to be established in law that a contract is made by letter, when either party, who had received proposals by letter, mails an answer of acceptance, provided he had not, previous to so doing, received a letter withdrawing or retracting those proposals. A policy, though signed only by the insurers, is equally binding on the insured, if the latter accepts its terms and places his property at risk under it. A policy may insure a party for himself, or "for whom it may concern," or employ other words to the same effect, with the object of bringing within the scope and benefit of the policy all persons interested in the property who authorize the insurance, are intended by the party to be insured, and afterward in good faith accept and confirm the obligation assured by the party named in the policy. This instrument sometimes defines the property insured; but there are many instances in which the property is left undefined; but the policy calls for its being afterward defined, as such and such merchandise or effects on board of such or such a vessel. This latter form is known under the name of *open or running policy*. Alterations made in a policy by mutual consent are valid; but any material alteration by the insured in the policy, even if made in good faith, without the consent of the insurer, invalidates it; if made by the insurer without the consent of the insured, will be without effect in law. Material mistakes in a policy competent courts will sometimes correct.

A policy of insurance, transferred in good faith, for value, unless such transfer is therein explicitly forbidden in the instrument itself, may be valid, and give the assignee an action against the insurer, in some places in his own name, and in others, in that of the insured; but it would be always open to objections in equity that might be advanced against the insured. An assignment or transfer of the property insured, before a loss, without being accompanied with the transfer of the policy by and with the consent of the insurers, would destroy the claim of the insured, and give no action whatever to the assignee. It is now the rule, both in England and the United States that the insured must have some interest in the property, and this property must be at risk. Under an open policy, the property not being valued, if loss occurs, the insured, on proving his interest or the value of the property, is paid accordingly. If the policy is a valued one, for instance, A is insured $20,000 on a ship valued at $40,000; if the ship is totally lost he will be paid $20,000; if the loss or injury be only $10,000, this amount will be allowed him and no more. He is in such a case considered as his own insurer for the other half of the ship's value which was left uncovered by the policy. If his insurance is for a round sum, no valuation appears, and he can prove having actually lost it by the risk insured against, it will be paid him in full. Marine insurance embraces the ship, the cargo, the freight the ship may earn, and the profits on the cargo.

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Either may be valued. As a general rule the ship is; but the other subjects are very often left unvalued. If there is a valuation of the cargo stated, and the goods are lost, the insured is required, under English law, to prove that there would have been profit. In the United States it is otherwise, the courts having decided that the loss of the cargo carries with it the loss of profits, and the valuation is the basis for settlement of the loss. Respecting a ship's freight, her owner possesses an insurable interest in the freight she will carry from the moment that he receives the goods of another to be carried, or buys goods to be conveyed on his own ship, or has made a contract with some one to receive and convey the goods, his ship being at anchor in the port, or on the way to it for the purpose of receiving them. Contracts of insurance are void where the interests insured are illegal, that is to say, contrary to the laws of the country where the contract is entered into, and will be enforced. For instance, goods may be insured in New York, which are intended to be smuggled into Valparaiso. Such a contract would have validity in the United States, but would be void in Chili. If an insured vessel is lost while engaged in an unlawful enterprise, say kidnapping negroes in Africa, or natives of islands, to sell them into slavery, the policy would be utterly void. Crews are not permitted to insure their wages for the voyage, because the policy of the law requires that the men shall feel the danger of losing their earnings if the ship is lost.

Warranties are of the highest importance in marine insurance, and must be strictly carried out, even if the promise be immaterial. The violation of a single warranty vitiates the policy. A warranty may be express, or implied by law. The most usual express warranties are: 1st, of ownership; 2d, of national character; 3d, of the lawfulness of the merchandise on voyage; 4th, of the taking of convoy; 5th, of the time of sailing. Among the implied warranties the most important one is that of the seaworthiness of the ship offered for insurance. The insurers very rarely, if ever, waive this warranty. In fact, even where the insured was ignorant of the unseaworthiness of his ship the policy is invalidated. However, the law will hold the insurers liable for a loss not resulting from unseaworthiness, such for instance, as the loss of the best bower anchor. But if the ship reaches a port where she might replace the anchor, and sails away without doing so, and meets with a loss, the insurers will be exempted from paying for other loss. Another implied warranty is that there must be no misrepresentation, and no concealment of material facts on the part of the person or persons desiring their interests to be insured. Any misrepresentation or concealment, even if unintentional or through mistake, would discharge the insurers. The insured must make known not only ascertained facts, but even rumors that may reasonably be estimated in the risk.

Sometimes it happens that a loss is caused by several reasons, some of which are insured against and others are not. In such cases, which often occur, it may be difficult to decide whether the insurers are liable. The rule enforced then is: *Causa proxima, non remota spectatur*. But it may not be easy to determine which cause was proximate and which remote; recourse is then had to another rule, that insurers are liable solely for the natural, direct and immediate effects of a peril. There are certain goods, such as grain, hides, and other perishable commodities that are likely to be somewhat injured by slight causes, or without external causes: it is, accordingly provided that insurers be answerable only for total loss, or a certain large loss, or any loss when caused by its stranding; for in either of these events the loss was probably caused by the peril insured against. Another implied warranty is that there shall be no deviation in the voyage, nor unnecessary delays; there must be no material departure from or change in the risks insured against, not justified by a sufficient cause. The effect of deviation is to discharge the insurers from all subsequent risks. Delay in commencing or prosecuting a voyage may be a deviation; going into a port by other than the natural and proper course is, beyond a doubt, a deviation. The deviation, however, must in all cases be intentional to discharge the insurers, and the loss must occur after the intentional deviation took place. But a vessels going out of her way *to save life* is not a deviation.

The premium of insurance is due when it has been earned by the risk; if the risk never takes place, the promise to pay the premium cannot be enforced. Therefore an insured party may at any time cancel the policy before the risk commences. Insurance on a ship covers all the implements and appurtenances actually and properly used for the navigation, though not necessarily. An open policy on a ship does not cover the freight; it is common, however, to cover the latter in the valuation of the former. Insurers may be answerable for the consequences of the acts or omissions of the master and crew, but not

when the conduct of the latter was in pursuance of orders from the ship's owner or owners. As a universal rule, insurers are liable only for extraordinary risks. American policies usually enumerate the risks insured against. There is a clause added, "and all other perils," but it is restricted by the enumeration. The usual perils insured against are those of the seas, and cover all loss or damage resulting from the violence of the wind or sea, or from unavoidable accidents arising from navigation. Collision is one of the perils. If two ships collide, and neither is in fault, the loss rests where it falls; if one alone is in fault, the responsibility falls entirely on her; if both are in fault, admiralty courts usually divide the loss equally between the two. For the loss a ship has actually sustained by collision, and no more, the insurers are liable. For losses resulting from outside robbers, the insurers are liable, as coming within the clause of insurance against "theft or piracy." The meaning of barratry is a subject of dispute. The true meaning of the ancient maritime term is probably, "any wrongful act of the master, officers, or crew done against the owner"; it is not barratry if done against other parties by the owner's command, or with his consent. In American policies it is usual to add after the word barratry: "if the insured be not owner of the ship." Consequently, owners of goods, and not owners of ships, are insured against barratry; for insurers are not willing to insure ship-owners against the misconduct of their own servants.

Insurance "at and from" a place begins when the property is there in a safe condition. Insurance "from" a place begins when the vessel sails. Under English and American policies, as written out now, the insurance continues "until the ship be arrived and moored 24 hours in safety." This means safety from the perils insured against, not the local ones of the port or place.

The admiralty courts in the United States admit the right of the insured to abandon, and convert a partial loss into a total one, when the partial loss is more than one half the value of the property insured; but the partial loss must exceed 50 per cent. estimated as a partial loss, which means after one-third has been deducted, it being admitted that in cases of partial loss one-third shall be allowed as the benefit conferred by the new materials of repair; the common phrase being "one-third off, new for old." One-third is considered a fair average to meet all cases. Therefore, in a case of partial loss, to justify abandonment, it must exceed 75 per cent.

A loss, where something has been saved, cannot be made total, excepting by transfer of salvage by abandonment to the insurers. If the insured lose by jettison — that is, by the throwing overboard of goods that sank to the bottom of the sea — or otherwise, so as to acquire a claim to general average contribution, this claim must be transferred, and if the insured contributed to the general average, the insurers must repay it to him. Abandonment is to be made immediately that the loss becomes known, in terms clear and distinct as to the fact of the loss and the transfer by the insured of all salvage by abandonment, presenting at the same time the claim for a total loss. If the insurers accept the abandonment, they are bound; if they refuse it, their refusal cannot impair the claim of the insured.

Salvage is the compensation allowed for services voluntarily rendered in saving a ship or her cargo from the perils of the sea. The allowance is intended as a reward for bravely encountering the dangers of the seas, in order that the interests of trade and navigation be promoted. Salvage service means to encounter a peril distinctly beyond ordinary danger, something which exposes the ship or cargo to destruction, unless extraordinary assistance be promptly rendered. There is no fixed rule or practice as to the amount to be given the salvor. In respect to abandoned property, one half of the value saved was allowed the salvor, in old times; but at present it is established that in such cases the reward be fixed by the same rules governing other salvage cases, namely, the danger the property may be exposed to, value, risk of life, labor, and length of the service rendered. For merely saving life no salvage is allowed; but when it is in any wise connected with the saving of property, the admiralty court will take it into account. It has been said elsewhere that a vessel does not deviate from her voyage by going out of her course to save life; but if she varies her course to save property, her insurance being thus forfeited, compensation must be allowed her for the forfeiture.

Persons legally bound to render their services in saving property at sea, are not entitled to salvage. A crew cannot claim as salvors of their own ship or cargo. There are, however, exceptions to this rule. If the seamen's contract is at an end, or the service rendered by them is entirely out of the line of their ordinary duty, there may be a valid claim for salvage. The members of a crew are bound to suppress at every risk and hazard a mutiny on their own

ship, and to beat off assailants, and cannot claim remuneration; but if they render such service in another ship, or retake a captured ship from mutineers, or robbers, this would give them a claim as salvors. If only part of a ship's crew go to save another and thereby acquire a claim to salvage, the rest who remained on their ship also come in for a share of the salvage, but not equally; their right rests, chiefly, on the extra labor, exposure, or perils which falls on them. A passenger may be entitled to salvage in an extraordinary case as in that of a seaman. Pilots may also in some cases have a valid claim to salvage; in the United States, however, extraordinary services rendered by pilots are considered as such and entitled to remuneration, but not as salvage services. Officers and crews of war vessels are in duty bound to rescue ships from mutineers without becoming entitled to compensation therefor; but if they incur great personal danger, or use extraordinary exertions in the performance, they may have a rightful claim; in ordinary salvage cases they are entitled to compensation. The general rule is that no one is entitled to salvage who has not directly participated and aided in the salvage services, or at least promoted them by doing the work of those who render them. The owners of the saving vessel are an exception; they are not only entitled to compensation for their stores, and other supplies and outlays, but also to salvage.

If the master can, by the proper use of his skill and the means in his possession, save his ship or cargo, the law takes for granted that he will, and that the salvor's interference was uncalled for; yet, if the latter proves that the master, though he could, did not make any effort to save them, his claim will then be a valid one. The endangered property must be actually saved by those claiming to be salvors to entitle them to salvage. Any one who encountered the danger, and did his best toward preserving the property will be allowed compensation, even if the property was actually preserved by other means. Salvage service may be equally rendered on the coast, as at sea, by either seafaring men or landsmen. If a vessel becomes short-handed through sickness or other causes, and is navigated into port by the crew of another vessel, this will be considered a salvage service. Where a vessel has remained some time by another ship at the request of the latter, even though nothing else was done, this has been held to be a salvage service. Salvage is usually allowed on all property saved, whether private or public, ship, cargo, or freight. When service is rendered under a custom to give assistance gratuitously in similar circumstances, or where there is an especial contract, no claim to salvage exists.

Any gross misconduct on the part of salvors, and especially the embezzlement of any part of the property saved, forfeits their whole claim. As long as the property is subject to the action of the court, the salvors' responsibility continues, respecting the preservation and protection of it.

Average is a term connected with marine insurance, and signifies the damages or expenditures resulting from the accidents of navigation. If sacrifices have been made, or expenses incurred deliberately by the master of a ship for the preservation of the ship, cargo, and freight, from some peril of the sea, or from its effects, such sacrifices and expenses are comprised in *general average*, and must be borne by the parties concerned, in proportion to the values of their respective interests. But the damage or partial loss happening to the ship, goods, or freight, by some fortuitous or unavoidable accident, belongs to *particular average*, and is borne by the parties to whose property the misfortune occurs, or by their insurers.

Although the fundamental principle of general average appears at first sight simple enough, its application is varied, and complicated cases have given rise to many diversities of usage in different countries at different periods. It has been found impossible to apply it except by the use of technical, and even apparently arbitrary rules, the distinctions on which they turn being sometimes exceedingly refined. Owing to these difficulties but little progress has been made toward establishing a general system of general average.

In the United States, according to a decision of the supreme court, three things must concur to constitute a case for general average, namely: 1st, a common danger, or a danger in which ship, cargo, and crew all participate—a danger imminent and apparently inevitable, except by voluntarily incurring the loss of a portion of the whole to save the remainder; 2nd, there must be a voluntary jettison, *jactus*, or casting away of some portion of the joint concern for the purpose of avoiding this imminent peril; or in other words, a transfer of the peril from the whole to a particular portion of the whole; 3d, this attempt to avoid a common peril must be successful. The right to contribution is not made to depend on any real or presumed intention to destroy the thing cast away, but on the fact that it has been selected to suffer the

peril in place of the whole, that the remainder may be saved. What follows is a necessary consequence of that destruction, such as injuries to other portions of the cargo, expenses of refitting; and the wages and the provisions of the crew in the port of relief, are also subjects of contribution. Ransom paid to a pirate, and in general, every necessary and voluntary loss or expense that is incurred by a part for the benefit of the whole, is included in general average. Goods finally saved must contribute for loss sustained, to secure temporary safety. By the French ordinance goods stowed on deck are excluded from the benefit, but not from the burden of general average, on the supposition that they hampered the ship, and augmented the danger, and such is the tenor of both the English and American law. In the courts of the three countries, however, an established usage to carry upon deck, as with small coasting vessels, is allowed to exempt a case from the operation of the rule. Both the continental and the American law are somewhat more liberal than the English, as to the subjects of general average, but the difference is only in the application of principles. The victuals and ammunition of a ship do not contribute in a case of general average, nor whatever is necessary to the persons on board, as wearing apparel, nor the passengers for their own safety, nor the crew for their wages, lest apprehension of personal loss should induce them to refuse their services. The rule of the civil law is that "those things alone which pay freight contribute," which with slight modifications is the general law in this particular. The contribution is rated in proportion to the safety obtained, according to value, not weight. There are also *petty averages*, such as pilotage, towage, anchorage, light money, quarantine, and other petty charges which are borne in common by the owners of the ship and cargo. There are so many niceties connected with the adjustment of general average, that in most commercial ports it is a branch of business attended to by a special class of men. An adjustment of general average made at a foreign port where the voyage may terminate, in conformity with the law and usage of the country to which said port belongs, is binding on all the parties concerned, even if made on principles different from those of the country where the vessel and cargo belong, or were insured.

Fire Insurance.—Insurance against fire is in principle the same as marine insurance, except as to the nature of the property insured. There is a scale of premiums for different classes of property, and according to the risks covered. If the insured proposes to make alterations in the property at risk, the insurers should be apprised of it, and if possible their consent obtained in writing. While the alterations are in progress, and a new risk exists from them, the insurers are exempt from liability for loss arising from this risk, but it is doubtful whether they are free from liability for loss arising from any course independent of the risk.

In fire insurance the rules of warranty, of representation, and of concealment are the same as those governing marine insurance. But some questions have arisen which need explanation. One of them is what part of a description is a continuing warranty. If a promise has been made by the insured to keep water tanks in an upper story, or that a watch will be maintained, or that the roof shall be slated, a breach of such promise avoids or suspends the policy. But if the insured represents his house to be 500 feet from any other building, the policy would not become void by a neighbor erecting a house within 100 feet of the insured one. A breach of warranty will not render void a fire policy unless there be fraud or other default on part of the insured. The property proposed for insurance must be in existence, and not then on fire, or in immediate danger from fire. To make the insurers liable there must be fire or ignition. The destruction of a house by lightning would not make the insurers liable for the loss, unless the latter was the result of ignition caused by the lightning. Insurers are held liable for the consequences of a fire. Any loss caused by honest efforts to put out the fire, such as pouring water upon it, or by the removal of insured goods from the peril of fire, or by the blowing up or tearing down a building to arrest a fire, the insurers must make good. But there must be an actual fire, near enough and dangerous enough to justify reasonable men in the measures that resulted in the loss. Negligence on the part of the insured, or of his servants does not save the insurers from their liability, unless they can prove that there was a fraudulent interest. That the fire was caused by the insanity of an insured party is no defence to the insurers. When a loss happens, the insured is only entitled to actual indemnity. Insurers against fire usually stipulate that they may rebuild or repair the premises insured, if they should prefer it to paying for the loss; they avail themselves of this privilege quite frequently. Policies

generally provide in substance and effect that any prior insurance, not reported, invalidates any subsequent policy. The law is very strict in construing and applying this rule. It is now common to state in policies that subsequent insurance, not made known and assented to, makes the policy null.

Life Insurance.—The following policies are usually issued by life insurance companies: A claim, said to be payable "on the death of the insured," means payable at the end of the year in which he dies; but when there is no doubt of its validity it is generally paid within 60 to 90 days. A whole-life policy carries with it the payment by the company to those representatives of the insured mentioned therein on his death. A large portion of the policies issued are of this kind. A term policy conveys the obligation of paying to the representatives of the insured a certain sum of money provided his death occurs within a given period.

Suicide committed by a person, who understands the nature of the act, and intends to take his own life, though committed during insanity, avoids a policy of life insurance, which provides that it shall be void if the assured shall die by his own hand. A policy of insurance may contain the clause that it shall be void in case the insured shall die in the known violation of any law of the state, or of the United States, or of any country which he may be permitted under the policy to visit or reside in. To avoid the policy on this ground the company must prove that the insured was killed while engaged in a voluntary criminal act, known by him at the time to be a crime against the laws of such state or country. A policy of insurance to a married woman, made under the laws of New York, for her benefit, and that of her children in case of her death, cannot be transferred so as to divest the interest of the wife and her children. If a policy of insurance on the life of a married man is made payable to his wife, and she dies before him, leaving children, the administrator of her estate, upon receiving the amount of the policy after the death of the husband, will hold it under the statutes of Massachusetts, if no other trustee is appointed, for the benefit of the children, and the administrator of the husband's estate has no interest therein. A wife's interest in such a policy is contingent on her surviving her husband; after her death before him her interest is gone.

There are other forms, but not so common as the above mentioned, namely: the simple endowment policy, which involves the payment to the insured of a certain sum at the end of a fixed term if he or she is then alive. An endowment insurance policy is an agreement to pay a certain sum to the insured at the end of a fixed term, or to his representatives on his death should that happen before the end of the term. This is what is usually understood when endowment policies are spoken of. A joint-life policy is an agreement to pay on the death of one of two or more persons (usually only two are named in the policy) a certain sum. A survivorship policy is the same as the last described, but only two persons are named in it, and the survivor gets the endowment. English companies issue other policies. The above mentioned are the only ones issued in the United States to any considerable extent. Life insurance is subject to the same rules, so far as they are applicable, as other kinds of insurance. Any fraud or deceit practiced to obtain a policy, or any false representation of essential facts, however innocently made, will render the policy void. A person may insure the life of another in the continuance of whose life he or she has a pecuniary interest; a wife has an insurable interest in her husband's life. Companies usually make in their policies specific provision upon most points that might give rise to disputes.

VI. SOCIETY.

Though a complete census of the Mexican population has never been taken, I adopt an estimate for 1882, which makes the number of males 5,072,054, and of females 5,375,930; total 10,447,984. These figures do not differ much from Correa, Geografia de México, who gives 10,500,000, nor from García Cubas, who in his Cuadro Geográfico, etc., has it 10,451,974. The government of the republic has adopted liberal measures to invite foreign immigration, which proved measurably successful, a number of foreigners, especially Italians and Spaniards, having come to settle. But it has been asserted that owing to difficulties in the way of successful colonizations, many of the immigrants have in recent years abandoned the country.

Of the total population, about twenty per cent. are pure, or nearly pure, white race; forty-three per cent. native mixed race; and thirty-seven per cent. of pure Indian. The Indian element is said to be decreasing; in 1882 it numbered 3,765,044. The whites are the creoles born in Mexico, descended from pure European blood, and the foreigners, probably not exceeding 100,000, and chiefly including French, Spaniards, Americans, Germans, Italians, English, and a few pure whites from other parts of Spanish America; superadded to them are those in whose veins other blood than that of Europeans has nearly disappeared. The whites live mostly in the cities and towns. In the mixed race are comprised, in the first place, four castes, viz: mestizos from whites and Indians, mulattoes from whites and negroes, zambos from Indians and negroes, and the pure negroes. Among the mixed breeds are several subdivisions, resulting from crossings and recrossings, in such great variety that it is almost impossible to trace or classify them. The union of a mestizo with European, Indian, or African, produces respectively castizo or trigueño, mestizo claro, and mulatto oscuro; from a corresponding mulatto union spring the morisco or tercerón, chino oscuro, and zambo negro; and from a similar connection with a zambo come a chino blanco, chino cholo, and zambo chino. Besides all that there is an occasional admixture of Asiatic blood from the Philippines. As for further recrossings, the issue from mixed blood on both sides are often classed as tente-en el aire, hovering in the air, that is, not clinging to any of the pure races, and as salto atrás, which denotes a deepening of color. The fourth degree of continuous intermixture with the white merges the last issue with the whites. These crossings and recrossings prevail in nearly all the rest of Spanish America and in Brazil, though possibly some of the various hues may be known under other names. The pure Indian, though of small stature is hardy, and long lived. No distinction of races is recognised by the fundamental law of the republic. The most populous centres of Mexico are the capital, with a population variously estimated at 230,000 to 300,000; Guadalajara, 80,000; Puebla, 75,000; Leon, 120,000; Guanajuato, 62,000; San Luis Potosí, 35,000; Mérida, 40,000; Zacatecas, 30,000; Querétaro, 30,000; Oajaca, 28,000; Colima, 26,251; Saltillo, 26,000; Vera Cruz, 24,000; and Aguascalientes, 22,000.

The efforts of the general government to promote immigration are unceasing; extraordinary concessions have been made to a company to induce immigration to a number of the states, the government granting exemption from taxation to settlers on the tracts set apart for them; protection is also guaranteed them. In Guanajuato a colony of Catalans and Majorcans has been established for whom seeds and plants were brought in 1887 from Barcelona. The project was entertained in London of distributing throughout Mexico 5,000 Jewish agriculturists, who had to flee from persecution in Russia. The newspapers friendly to the government favored it, but those of the opposition, namely, ultra conservatives and clericals, pronounced against the introduction in Mexico of Jews and socialists; they were hostile also to the colonization of Lower California by Americans.

The population of the five republics of Central America may be estimated at about 3,070,000; like that of Mexico, it is made up of many mixtures, with these differences, that in Guatemala, Honduras, Salvador, and Nicaragua, the pure Indian element largely predominates, and in Costa Rica the white.

An official document of Guatemala, dated January 1st 1886, gave the entire population at 1,322,544. The census taken in 1880 exhibited 1,224,602 souls; computing the births and deaths since that time, the population on the 1st of January, 1887 was set down at 1,357,900, of whom 60,000 were of European descent; and the rest of mixed breeds and pure aborigines. The numbers of each sex were given in 1880, as follows: whites and mixed breeds, etc., 183,536 males, 196,292 females; Indians, 421,518 males, and 423,256 females. The most populous city is Guatemala, the capital, with about 50,000 inhabitants. In 1883 the Guatemalan government entered into a contract to introduce 10,000 immigrants from Europe or the United States, agreeing to give each one of 21 to 50 years of age, 45 hectares of land, on condition that he cultivated one-half of it, and became a citizen. Several colonization schemes were tried in former years, which were unsuccessful. I have not heard that the effort of 1883 has yielded any result.

The population of Honduras was computed in 1884 at 458,000, most of whom are aborigines: the European-descended inhabitants—mainly of Spanish origin—are very few in number. There are a good many of African descent, and mixed breeds of every conceivable hue. In 1867-68 a considerable number of immigrants, most of whom were Americans, settled in Honduras, being encouraged by the liberal laws and the facilities offered by government. Within recent years many foreigners have been drawn to the country by the discovery of valuable gold placers.

According to the census taken on January 1st 1886, the number of inhabitants of Salvador was 651,180, an average of 89 to the square mile, or twenty times the average of the other Central American states. The bulk of this population consists of aboriginal and mixed races, largely the former: the pure white portion of European descent, does not probably much exceed 10,000.

San Salvador, the capital, is the most populous town of the republic, having between 13,000 and 14,000 souls. Though Salvador has done little toward increasing her population by introducing white immigrants, foreigners of good character and industrious habits are always welcomed and protected in their rights. They can become naturalized after five years' residence, or at the end of three years if they are natives of other Spanish American states.

Nicaragua was estimated in 1883 to have about 430,000 inhabitants, the great mass of whom were aborigines, negroes, mulattoes, and other mixed races, in which the Indian element is more or less marked. The pure Indians form about one-half of the total population. The pure whites are comparatively insignificant in number. Leon is given 40,000 souls, Granada, 25,000, and Managua, the present seat of the government, about 12,000. In 1855 a colonization decree was issued by President Rivas granting each immigrant 200 acres of land, and 100 additional to each family: a rapid increase of immigration was the result. Again in 1865 an immigration law was passed granting a number of privileges to persons willing to accept them.

Recently published statistics of Costa Rica state that on the last day of 1887 the population of Costa Rica was 230,157, an increase of 3,927 since the former census. The number of males was about 100,587. At the end of 1885, it was calculated that there were about 4,672 foreigners in the country, most of whom were of Latin race, and no less than 1,427 from the sister republics of Central America. Though the government of Costa Rica has frequently offered inducements in the way of land grants for European immigration, it must be admitted that the people are jealous of foreign influence, and however anxious to have the benefits of foreign capital, are not willing to share with foreigners the wealth which it develops. After 1849, several land grants were made to various companies, but none of them made permanent settlements.

The aggregate population of Colombia was computed in 1881 at 3,878,600, including about 220,000 uncivilized Indians, and the 80,000 souls living in the extensive territories not constituted as departments.

The chief centres of population are the valleys of the Magdalena, Cauca, and Atrato rivers. The census of 1880 gave the isthmus of Panamá 207,598. In

1882, it has increased to 343,782, and since that time the increment has been very marked. A considerable addition to the population of the republic has resulted from recent efforts to develop the mining industry. On the coasts of both seas there is a large number of negroes, and their descendants in a variety of hues. In the interior departments the Indian element predominates with its mixtures. The purely white population is limited.

An estimate of 1886 gives Venezuela 2,198,320 inhabitants, an increase of upward of 120,000 since 1881.

Of the total population probably 60 per cent. were Indians and negroes, 30 per cent. of mixed blood, and 10 per cent. of pure white. In 1881 there were 34,916 foreigners in the country, about one-third of them being Spaniards; 4,641 English, 3,237 Italians, 3,206 Hollanders, 2,186 French, 1,171 Germans, and 3,729 Colombians. Besides these, it was reported that upward of 6,000 British subjects from the islands of Trinidad and Jamaica were in the gold district of Orinoco. Caracas, the capital of the republic, had in 1881, 55,638 souls; Valencia, 36,145: Maracaibo, 31,921; and Barquisimeto, 28,918.

Ecuador, by the census of 1885, had 1,004,651 inhabitants of all races and hues, there being probably about an equal number of either sex.

In round numbers 100,000 are whites of Spanish descent, and a few foreigners; 300,000 of mixed races, and 600,000 pure Indians, both civilized and uncivilized. Quito, the seat of government of the republic, had about 70,000, including Indians; Guayaquil, 35,000; and Cuenca, 30,000.

The population of Brazil is made up of whites, Indians, negroes, and the variety of breeds or castes usually resulting from the crossings and recrossings of those races. Most of the population dwell near the sea-coasts and around the sea-ports. Vast interior regions are very thinly populated. Both the imperial and provincial governments have adopted liberal measures for the increase of the population, especially with European immigrants. Private parties have also efficiently aided to the same purpose. Such efforts have been successful to some extent. A large proportion of the African element was held in slavery; but laws were enacted for the gradual emancipation of the slaves, which were aided by frequent private and gratuituos manumissions; and the expectation was that slavery would cease altogether in 1892. However, both government and people were anxious to see the disgraceful institution disappear forever, and in May, 1888, the general assembly, with the sanction of crown princess Isabel, regent of the empire in the absence of Pedro II., declared free all the existing slaves, most of whom were located in the provinces of Rio de Janeiro, Minas Geraes, and São Paulo.

By an estimate made in 1885 Brazil had an aggregate population of 12,922,875 of all races and castes, including about 600,000 wild aborigines. Of the total number, the proportion of white, or nearly so, was probably a little above 4,000,000, this number comprising about 573,070 foreigners, namely, 300,000 Portuguese, 180,000 Germans, 50,000 Italians, 20,000 French, 15,000 English, 2,470 Poles, 600 Spaniards, and 5,000 of other nationalities. The Indian element, pure, and the mestizos, form the great majority of the inhabitants, the population of the northern provinces being nearly all Indian. The negro and different hues of mulatto, also constitute a large proportion. On June 30, 1885, the slave population was computed at 1,133,228, a decrease of 107,578 from the preceding year, not including the sexagenarians recently freed. The number of slaves was estimated in 1850 at 2,500,000. Under a law passed for the gradual abolition of slavery, indemnifying the owners, a valuation was made of each slave according to age, occupation, etc., the females being reckoned at 25 per cent. less than the males. The highest price was about $400 for slaves from

15 to 20 years of age (there were none then of less than 14), and the lowest, 200 milreis, for those from 50 to 60; after 60 years the slave, by serving three years longer, became entitled to full freedom. In September 1886, the number of slaves must have been reduced to less than 1,000,000, through death and liberation. The number of children born free under the first emancipation law was 439,831. In June 1886 Ex-premier Dantas moved in the new parliament the complete emancipation of the negro slave at the end of five years. His motion was lost, but on the 1st of October of that year, a law was passed abolishing the lash as punishment for homicidal offences committed by slaves; the latter were placed, as regarded criminal offences, on the same footing as freemen, except transportation and fines, for obvious reasons. A fund had been created to carry out the emancipation scheme. But, as I said above, the manumission of the remaining slaves was decreed in May, 1888. The number of slaves in the country was calculated not to exceed 650,000 on the 31st of March of this year, a decrease of over 900,000 since 1873, if that estimate was correct. The freedman in Brazil, has always enjoyed all the civil rights, and the native-born could aspire to any position, which he had the ability to fill.

The inducements first offered to foreign emigrants were the following: Payment of the difference in the amount of passage money from the port of departure to the United States, and that to Brazil; the advance of the full passage money to families intending to settle in the government colonies; exemption from import duty on all effects the property of, and brought into the country by the emigrants, a hunting gun given to each adult, etc., etc. There were in 1875 fifteen colonies immediately dependent on the imperial government, numbering together about 23,000 souls, aside from one dozen founded under the auspices of the provincial governments, and a number established by private companies, some of which received subsidies from the national treasury. Many of the colonies were in a prosperous state. The total expenditure of the imperial government on behalf of immigration and colonization in the 30 years, from 1846-47 to 1875-76, amounted to $11,525,621, including the outlay for the regular service of the public lands. The following figures show the number of immigrants arrived in Rio de Janeiro during the four years given: 1882, 25,845; 1883, 26,789; 1884, 17,999; 1885, 22,727. Of the numbers arrived in 1885, 10,908 were Italians, 7,611 Portuguese, 2,119 Germans, 815 Spaniards, 466 Austrians, 251 Poles, 233 French; the remainder was of various nationalities. The following benefits are now offered by the Brazilian government to encourage immigration: 1st, free passage from Europe to Brazil to all coming to the agricultural settlements as laborers, whether their services have been, or not, previously contracted for; 2nd, reduced rates of passage to all wishing to settle on their own account on lands belonging to the state, which are sold them already measured and marked out, for cash, or for payment at stipulated times; or to those preferring to establish themselves in the already existing agricultural colonies; 3d, the construction of roads, schools, and churches, as well as any other aid or assistance for the prosperity and development of colonial settlements. In addition to the above the government furnished the immigrants board and lodging for some days, and free transportation from the port they landed at to the locality of their destination. The great mass of immigrants are very poor. During 1887, 52,620 immigrants arrived at the different ports of the empire, of whom 31,036 came for the province of São Paulo; the next province which attracts foreign immigration is Rio Grande do Sul. This province contains a large foreign element. Rio de Janeiro, not having been successful in attracting foreign immigrants, resolved to make another attempt, and combined its efforts with those of the general government, which for 1888 had at its disposal upwards of one and a quarter million dollars for promoting immigration, besides one-third of the emancipation surtax, which was estimated at $900,000. The general government now gives them four days' board, and lodging at its immigration depot, and pays their passage by railway, river, or sea, to the port or station nearest the place of settlement. To planters who advance to immigrants the money for their passage from Europe, it repays the amount, the cost of passage not exceeding $43.68 for each adult, $21.84 for each child from 8 to 12 years old, and $10.92 for each child between 3 and 8 years. The only qualification for a foreigner to become naturalized as a Brazilian citizen is two years' residence in the empire, or two years' employment of the government abroad.

The Argentine Republic has had a steady increase of population, which is mainly due to the liberal measures adopted by the government for attracting foreign immigrants. In fact, it may be

said that no country in America, save the republic of the north, has drawn to it so large an immigration. The intent of the colonization law has chiefly been to induce the coming of agricultural families, but it likewise favors that of artisans and mechanics. Hitherto a larger proportion of the immigrants has come from Italy. Lately the Argentine government has been taking steps, even at great sacrifices, to introduce people from northern Europe. Two reasons are adduced for this; one is that the Italian government encourages the pretensions of its subjects in the Plate region, not to be themselves, nor their offspring, nor estates, wholly subject to the laws of the country. Some Italians claimed that their children born in the republic were not Argentine citizens, but Italians because they were educated in schools supported with funds contributed by the Italian treasury. The Argentine government upholds the clause of the national constitution declaring that persons born in the republic are Argentine citizens. The other reason is that the Italians, though at first engaging in agricultural pursuits for a time, abandon that occupation as soon as they can, and turn their attention to trade and kindred branches. The country needs agriculturists more than traders, and makes sacrifices to procure the former. The government has therefore concluded to procure an immigration more inclined to appreciate the benefits of Argentine citizenship, as well as to prefer tilling the soil to trading.

The population of the Argentine republic is made up of whites and Indians, with a considerable portion of mixed breeds. The Indians occupy most of the territory extending from the extreme south, over all the plains of Patagonia, the central parts of the pampas, and through the Chaco into Paraguay and Bolivia. The gauchos, of whom so much is said, are the horsemen of the Pampas, and descend from the earliest Spanish colonists. The Indians are mostly of the Araucanian race, and live in separate tribes, each ruled by a cacique. Some of them are, however, employed as farming hands.

The more important features of the colonization law enacted in 1876 are: Advance of the passage money from any European port to the port of Buenos Aires; free grant of 100 héctaras (nearly 250 acres) of land to each of the first 100 families establishing themselves in one of the sections surveyed for colonization; the sale of lands at $2 in gold per héctara, payable in ten yearly installments, beginning in the third year, without interest; advance of rations for one year at least; advance of working and breeding live-stock, seeds and agricultural implements; the building of a house; and, in general, all that a family will need in such conditions. The entire advance, aside from the price of the land, cannot exceed $1,000 in gold per family, and is reimbursable—without interest, and at the cost price of what the family may have received in produce—in five annual payments, commencing after the end of the first year. The colonists are also exempted from taxation during ten years. After the colony is six years old, the government gives a prize of $10 per 1,000 trees at least two years old planted by the immigrant. The intention of the government was chiefly directed, as stated above, to encourage the immigration of agricultural families. In the course of 1876, 10,118 new settlers had been sent to the upper provinces. The government had established colonies at various places, a small one being at Santa Cruz in Patagonia. There was also a Welsh colony at Chubut in that territory. The immigration from 1870 to 1880 inclusive, aggregated 471,766. The number of immigrants arrived in 1885 was 108,722 against 77,805 in 1884, and 63,243 in 1883. Of the immigrants of 1885, 63,501 were Italians, 4,314 Spaniards, 4,752 French, and the rest Germans, Swiss, Austrians,

English, Irish, etc. There were among them 58,290 farmers, 6,935 day laborers, and the remainder belonged to mechanical trades. The greater portion of the immigrants were utterly impecunious, having little more than a bag of clothing, and some of them a few articles of household furniture. In this year the government did not think it prudent to push its system of official colonization. There were in 1886 ninety-eight flourishing settlements occupying about 748,585 cuadras. The population of the republic in 1836 was set down at 620,730; in 1869, 1,526,738; in September, 1882, 2,942,000; in 1887 (including 450,063 in the city of Buenos Aires), 3,289,995 in the provinces, and 145,291 in the territories; total, 3,435,286 souls. In this year there were about 600,000 foreigners in the country, namely, 280,000 Italians, 150,000 French; 100,000 Spaniards, 40,000 British subjects, and 20,000 Germans. The arrivals of immigrants in the last five years aggregated nearly 441,000, most of them from the south of Europe. The immigration in the same period varied from 9,000 to 14,000 annually; in 1886 it was 13,907.

The population of Uruguay consists of whites and Indians, together with the mestizos of the various hues resulting from the crossing and recrossing of the races and castes. The white element has been largely increased by European immigration in the last thirteen or fourteen years. In the department of Montevideo the density of population in 1886 was 269 to the square mile; in other departments it varies from 12 to 1, the average density being 9.

The number of inhabitants in 1874 was set down at 450,000 against 221,248 in 1860; in 1832, upwards of 500,000, of whom about two-thirds were females; that number included about 60,000 semi-civilized, and some 70,000 uncivilized Indians; in 1886 it was calculated to be 596,463, which included 553,000 natives of the country, 42,102 Spaniards, 89,430 Italians, 23,750 Brazilians, 18,010 Argentines, 16,225 French, 2,900 Germans, and 2,890 English. Most of the Spaniards and French are Basques. Montevideo, the capital, had in 1884 104,472 inhabitants, of whom one-third were foreigners. The number of immigrants arrived has been as follows: from 1870 to 1881 inclusive, 127,744 persons; in 1882, 31,383; 1884, 41,624; 1885, 46,960; 1886, 12,291 by the port of Montevideo alone. About one-third of the immigration came in through Montevideo from countries beyond the seas. There is, however, a considerable emigration, as witnessed in 1886 when 36,777 went away.

Paraguay has also a mixed population of whites, Indians and mestizos, the Indian element greatly predominating, and the females exceeding the males by about 40,000, as the result of the last war the country was engaged in. The government has been offering inducements, with measurable success, to promote the immigration of farm hands and artisans.

According to the census of 1886 the whole population was 300,000, of whom 170,000 were females, and 130,000 males; there were among that number about 70,000 wild Indians. There were permanently settled in the republic about 9000 foreigners; viz: 1500 Italians, 1,000 Argentines, 600 Brazilians, 300 French, 550 Germans, and 100 English. The Germans were on the increase. In that year there was a French colony in the process of foundation between the rivers Paraguay and Bermejo in the region Chaco Alto Peruano. Each colonist binds himself to labor and cultivate the land granted him, into the full ownership of which he comes when he shall have reimbursed to the Paraguayan government $56 in silver, and the seeds, tools, cattle, etc., which are advanced him; the advantages afforded by the government are: a dwelling house, tools, seeds, etc., besides provisions for about eight months; the advance bears no interest, and the colonist is, moreover, exempt from taxation and military service. Asunción, the capital, had in 1886 about 25,000 inhabitants; Villa Rica followed with 11,000; all other towns had considerably under 10,000. About one-third of the population dwell in the central districts, the rest being thinly spread as settlers over the remaining portion of cultivated country.

The population of Bolivia is largely composed of Quichúa and Aymará Indians, the former being the direct descendants of the Incas; to them must be added the whites, and mixed breeds.

The present number of inhabitants may be estimated at about 2,825,000, exclusive of some 250,000 wild Indians. The proportions are probably 50 per cent. of Quichuas, 25 per cent. of Aymarás, 18 per cent. of whites and light mestizos, and 7 per cent. of half castes.

Perú has also a mongrel population consisting of whites, Indians, negroes, Chinese, and every conceivable mixture resulting from the crossings of the different races, and of the several castes sprung from them

Congress in 1873 authorized the annual expenditure of 100,000 soles in promoting European immigration, to which end irrigated lands of the government were also to be granted to the immigrants. The European immigration society was then organized to carry out this project, and introduce colonists from Great Britain and Ireland, France, Belgium, and every other European nation. The society had already in 1876 brought 920 immigrants, of whom 856 were Italians. To each able-bodied person was given 250,000 square metres of land, free of cost, on condition of its being brought under cultivation.

According to the census of 1876 — the last taken — the population numbered 2,699,945, besides about 35,0000 uncivilized Indians. Those figures of course included 42,000 of Tarapacá, which now belongs to Chili. It was calculated that 57 per cent. of the total population were pure Indians, 23 per cent. of mixed races, and the remaining 20 per cent. of descendants of Spaniards; to whom should be added about 18,000 Europeans, and upward of 50,000 Chinese. Lima then had 101,488 inhabitants, Callao 33,502, Arequipa 29,237, and Cuzco 18,370.

The republic of Chili has the same mixed population of the other South American countries. There is a considerable foreign population. The country has recently been visited by Asiatic cholera, which caused a very large mortality.

The census of 1875 gave 2,068,447 inhabitants, to which must be added 215,121 in the three new settlements, and 42,000 of Tarapacá. In 1880 the population was set down at 2,183,434. In 1882 it was estimated at 2,223,434. In 1885 it consisted of 1,258,616 males, and 1,268,353 females; total 2,526,964. The foreign population exceeded 50,000. The decrease of laboring men caused by the cholera in 1887 has been seriously felt, as it became extremely difficult to procure workmen for the several industries, and for railway extensions and improvements. The consequence has been that mere laborers on the railway in the cordilleras, whose daily wages formerly were 60 to 90 cents in paper were in the early part of 1888 receiving as much as $1.40 in gold or its equivalent. The two most populous towns of Chili are Santiago, the capital, with about 237,000, and Valparaiso with some 125,000.

The population of the Dominican republic is mainly composed of negroes and mulattoes. There are, however, a good many whites, or European-descended inhabitants, through whose influence the Spanish language prevails.

In 1887 the population was estimated as high as 504,000, or about 27 to the square mile; another authority makes it only 350,000 which is more likely. In late years a current of immigration has set in from Cuba, Jamaica, Porto Rico, and the United States. Santo Domingo, the capital, is given from 15,000 to 20,000 inhabitants.

In Hayti a census of population does not exist. One half or more of the inhabitants are negroes, and the rest French-speaking mulattoes, with a very small sprinkling of pure whites.

Authorities differ as to the number of people in the Haytian republic. In 1859 she was credited with 500,000, and in 1884 with 572,000; one authority claims

for her only 550,000 in 1886-87. Official estimates, however, make the number 800,000.

The population of Cuba and Porto Rico is of various classes, namely natives of Spain, white creoles or natives of the islands, mulattoes, or the issue of white and negro, among whom are many recrossings, some approaching white and even merging into that class, and others going backward to the black; and negroes, a large proportion of whom are native-born Africans. To the above should be added a considerable number of foreigners, all white, and in Cuba several thousand Chinese. It is not unlikely that the latter, together with a few other Asiatics, from the Philippines, have also mixed their blood with the other races and their crossings. In Porto Rico the gíbaros, or small land owners and day-laborers of the country districts, are said to be an old Spanish stock modified by Indian blood. African slavery no longer exists in either Cuba or Porto Rico. Arrangements have been made for the importation of field hands and other operatives from Italy and other countries in southern Europe.

The population of the Spanish Antilles in 1886 was as follows: Cuba, 1,521,684; Porto Rico, 784,709; total, 2,305,393 souls. The first census taken in Cuba was that of 1774 showing the population to be 172,000; from 1811 there was a steady increase. An official statement of 1872 gave 1,309,393 souls. The number of free blacks was 26,000; in 1874, 50,000; in 1875, 75,000; in 1876 it was estimated at 84,000, and of slaves 199,000, a great decrease from 363,000 in 1870, and 287,000 in 1873. In 1877 the population was computed at 1,521,684 souls, and Habana, the capital, was credited with 250,000 inhabitants.

The population of Porto Rico was estimated in 1820 at 230,622 souls; in 1830 at 319,000; in 1860 at 583,308; 1878, 729,445; and in 1880 at 754,313, of whom 429,473 were white, and 324,840 black and colored.

African slavery was never considered as necessary in Porto Rico, and a good many of the slaves were from time to time taken to Cuba. The last trace of slavery disappeared from the island under the law of March 1873. Porto Rico presented the singular circumstance of white and colored men working on the same fields and at the same labor without the former considering themselves degraded thereby. In Cuba there had existed for many years a feeling against the institution of slavery among the creoles, and one of the first acts of the revolutionary leaders in 1869 was to declare all the slaves free. Had the revolution been successful that decree would have been made effective. A bill for the gradual abolishment of it in the island was adopted by the Spanish córtes in November, 1879. A transitory form of servitude was created by the abolition law of February 13, 1880. The number of slaves decreased from 1870 to 1877 by 136,000; the number freed from May 5, 1885 to May 7, 1886 was 25,023; to the latter date 120,233 had obtained their freedom in six years under the emancipation law. A royal decree of October 7, 1886, pursuant to an act of the córtes, abolished the patronato or semi-servitude created in 1880, the 25,381 beings who were still in bondage were made free, and the last vestige of the barbarous institution ceased for ever on the Pearl of the Antilles.

The terms offered to those invited to come from Europe and settle in Cuba were $15 a month the first half of the year, and $9 a month the second half, besides board and lodging, to those between 18 and 50 years. I have not heard that any considerable number of persons have accepted these terms.

The United States possess a population composed largely of whites, but there are also many millions of negroes and their descendants in various hues from their crossing and recrossing with whites and Indians. The number of the latter, both civilized and uncivilized, is small as compared with the other races. There are likewise a few thousand Chinese. It is a well known fact that the liberal laws of the republic have brought to her shores an immigration unparalleled in the annals of the world.

According to the last census taken by authority of the national government in 1880, the population by races was as follows:

White	43,402,970;	increase of 29.20 per cent.	over 1870.
Colored	6,580,793;	" of 34.67 "	" " "
Chinese	105,613;	" of 66.78 "	" " "
Indians (civilized)	66,407;		
Total,	50,155,783.		

Of which number 11,318,547 lived in the 286 cities then existing in the country. Native born were 43,475,840, and foreign 6,679,943. The total by former censuses was in 1790, 3,929,214; 1800, 5,308,483; 1810, 7,239,881; 1820, 9,633,822; 1830, 12,866,020; 1840, 17,069,453; 1850, 23,191,876; 1860, 31,443,321; 1870, 38,558,371.

The inhabitants of Alaska and the Indian territory (both unorganized then) were not included in the statement for 1880. The census of Alaska in said year showed whites, 392; creoles (issue of intermarriages between whites and natives), 1683; Aleuts, 1960; Innuits, 17,488; Indians, 8655; total, 30,178. The Indian territory is estimated at 60,000 to 70,000. The Indians included in the statement are only the civilized ones, or outside of tribal organizations. Indians not taxed are by law excluded from the census. The estimates of their number vary widely from 200,000 to 350,000 (the latter as estimated in 1870). The latest calculations rendered in 1881 to the commissioner of Indian affairs by the Indian agencies set the number at 246,417, excluding Alaska. The whole population of the United States, including Indians and Alaska, undoubtedly must have exceeded 50,500,000. Among the Chinese have been included 148 Japanese.

Immigration into the United States, 1820-1887.

Prior to the year 1820 no statistics of immigration were officially kept. By act of Congress of March 2, 1819, Collectors of Customs were required to keep a record and make a quarterly return to the Treasury, of all passengers arriving in their respective districts from foreign ports; and these reports, published from time to time by the Treasury Department, constitute the sources of information to the progress of immigration. The total number of foreign-born passengers arriving at the ports of the United States, from 1820 to 1887 inclusive, is given below. Prior to 1856, the figures show the whole number of aliens arriving, but from 1856 to 1887, inclusive, the number of immigrants only, *i. e.*, of foreign passengers settling in the United States.

It has been estimated that the whole number of aliens coming to the United States from 1789 to 1820, was about 250,000.

Year	Immigrants	Year	Immigrants	Year	Immigrants	Year	Immigrants
1820	8,385	1838	38,914	1856	195,857	1872	404,806
1821	9,127	1839	68,069	1857	246,945	1873	459,803
1822	6,911	1840	84,066	1858	119,501	1874	313,339
1823	6,354	1841	80,289	1859	118,616	1875	227,498
1824	7,912	1842	104,565	1860	150,237	1876	169,986
1825	10,199	1843	52,496	1861	89,724	1877	141,857
1826	10,837	1844	78,615	1862	89,007	1878	138,469
1827	18,875	1845	114,371	1863	174,524	1879	177,826
1828	27,382	1846	154,416	1864	193,195	1880	457,257
1829	22,520	1847	234,968	1865	247,453	1881	669,431
1830	23,322	1848	226,527	1866	167,757	1882	788,992
1831	22,633	1849	297,024	Fiscal year ending June 30.		1883	603,322
1832	60,482	1850	369,980	1867	298,967	1884	518,592
1833	58,640	1851	379,466	1868	282,189	1885	395,346
1834	65,365	1852	371,603	1869	352,768	1886	334,203
1835	45,374	1853	368,645	1870	387,208	1887	490,109
1836	76,242	1854	427,833	1871	321,350	Total	13,938,766
1837	79,340	1855	200,877				

The number of persons engaged in the several occupations in 1880 was as follows: 7,670,493 in agriculture; 4,074,238 in professional and personal services; 8,837,112 in manufactures and mining; 1,810,256 in trades and transportation; total, 17,392,099, out of a population of 36,761,607 above the age of ten years.

The next national census will be taken in 1890. The population in 1888 is supposed to exceed 60,000,000 souls.

Immigration to the United States by Countries, during 67 Calendar Years.—1820-1886, inclusive.

Great Britain.		Austria-Hungary	278,414	Summary.	
		Belgium	24,014	Europe	12,004,208
England	1,358,406	Denmark	109,286	Asia	291,015
Ireland	3,242,019	France	344,884	Africa	1,109
Scotland	267,357	Germany	4,140,941	British America	1,047,080
Wales	27,020	Italy	227,194	All other American countries	115,069
Great Britain, not specified	793,267	Netherlands	80,920	Pacific Islands	17,167
		Russia & Poland	184,305	All other	225,316
Total from British Isles	5,688,969	Spain & Portugal	41,233		
		Sweden & Norway	721,926		
		Switzerland	146,922		
		All other countr's	6,817		
		T'l from Europe	12,004,208	Grand aggregate	13,700,929

Most of the population of the British West India islands is made up of negroes and mulattoes; the number of whites among them is comparatively small. African slavery existed in all of them until the general emancipation law of 1840 took effect. In British Honduras and British Guiana the population is still more mongrel, a large Indian element existing, which has given rise to a greater variety of mixtures. In the last named possession there is also a considerable number of East Indian and Chinese coolies, who mix their blood with the other races.

The following table gives the inhabitants of the several colonies:

Year	Colony	Population	White Proportion
1887	Bermudas	15,177	6,030
1881	Bahamas	43,521	11,000
1881	Brit. Honduras	27,452	375
1881	Jamaica	580,804	14,492
1881	Turk's & Caicos	4,778	.....

Leeward Confederacy

Year	Colony	Population	White Proportion
1881	Antigua	34,964	2,150
1873	Barbuda	*2,060	.....
1881	St. Kitts	29,137	.....
1881	Nevis & A'guil.	11,864	.....
1886	Montserrat	11,800	.....
1886	Dominica	28,211	.....
1881	Virgin Islands	5,237	.....
1881	Barbados	173,522	18,000

Windward Confederacy.

Year	Colony	Population	White Proportion
1885	Grenada	47,364	.....
1886	St. Vincent	45,081	2,606
1886	St. Lucia	41,000	1,000
1886	Tobago	19,640	.....

*Mostly negroes.

Year	Colony	Population	White Proportion
1886	Brit. Guiana....	270,042	†10,000
1886	Trinidad.....	*178,270	

In Jamaica a few thousand East Indian coolies have also been introduced from Calcutta. The governor of this island is authorized by law to grant naturalization to any alien or foreigner already settled, or about to settle and plant in it, who has first taken the oath of allegiance to the British crown. This privilege has been applied for by many immigrants from Cuba and Hayti. A foreign born woman who marries a British subject is entitled to the rights of a British subject in Jamaica. But it seems that certificates of naturalization granted in Great Britain do not give the holders the rights and privileges of British subjects in the colonies. The average rate of daily wages paid about Kingston and Spanish Town, under ordinary circumstances, is as follows: Fitters, 5s. to 6s.; masons and bricklayers, 3s. to 4s.; carpenters and joiners, 2s. 9d. to 4s.; painters, 2s. 3d. to 3s.; blacksmiths, 2s. 6d. to 4s.; laborers, 1s. 6d. to 2s; women get 9d. to 1s. The hire of a mule and cart, or dray with driver, 4s. 6d. to 5s per day; the same with two mules, 7s. per day. Day labor rates are lower in the country districts; but after making allowance for shorter hours the rates remain practically the same for town and country. In some parts artisans are scarce, and inferior must be employed at town prices. On a rough average, labor costs from 50 to 100 per cent. more in Jamaica than in England. For instance, good brickwork costs 7s. per cubic yard in Jamaica, and only 3s. 6d. for similar work in England. Wages on estates are somewhat lower than the above. The census of 1871 gave British Guiana 193,491 inhabitants, exclusive of 7,000 aborigines, and including between 70,000 and 80.000 natives, and 13,385 West Indian negroes; 10,000 mixed breeds of Indian and Chinese, the colored population, 42,681 immigrants from India; 6,295 Chinese, 7,925 from Madeira and the Azores; and 9,635 Europeans—mostly English, Dutch, and French—and others. Toward the end of 1877 there were about 23,000 East Indian immigrants, under a five years' indenture to work on plantations; about 5,000 of these coolies are imported yearly. Chinese are imported also with and without indentures.

The West India possessions of other European powers have about the same character of mixed population.

The following figures represent the number of inhabitants of the French colonies: Guiana or Cayenne, 27,000; Guadeloupe and dependencies, 181,098; Martinique, 169,232. The population of Guiana consists of a few whites, negroes from Africa, mulattoes, coolies, Indians—decreasing from year to year—convicts from France and the colonies, among them some Arabs from Algeria, Chinese, Hindus, and Anamites. This colony became a penal establishment of France in 1852, when criminals under sentence were offered the privilege of residing in it, under certain restrictions, which about 3,000 accepted. However, in 1853, the government resolved to confine in Cayenne Asiatics and Africans sentenced to hard labor, or solitary confinement, and since 1864 Eurepean convicts have been sent to New Caledonia; consequently, the convict population now is composed of negroes, Arabs, and natives of Anam. The chief penal places are Cayenne, the three Salut isles, the Korou, and the Maroni. La Mere, a little island, is reserved for the aged, infirm, and convalescent. The convicts carry on their several trades; after two years of good behavior they are allowed to contract marriage; to send home for their families; a piece of land is assigned, and the necessary implements given to each for cultivation. These grants are in communication with each other by a tramway. In 1877 there were 338 officials, and a military force of nearly 1,100 men.

Basse Terre, the capital of Guadeloupe, probably has 13,000 to 14,009 inhabitants. In Martinique the most populous communes are St. Pierre, with about 25,000 inhabitants; Fort de France, about 16,000, Lamentin, about 14,000; and Francois about 11,000. A colored person with hardly any trace of Caucasian blood is called saccatra, and on the other hand, one with the least trace of negro blood is a sangmelée. It is stated that 66 per cent. of the births

*Estimated. †About.

are illegitimate. Gustavia, the head town of the island of St. Bartholemew, a dependency of Guadeloupe, had in 1883, 2,942 inhabitants. France also owns a portion of St. Martin, whose chief place Marigot had in 1882 abont 3,725 souls.

The Danish islands, St. Thomas, St. Croix, and St. John, were credited in 1880 with 37,600 inhabitants, mostly free negroes; slavery was abolished in 1848, and coolies began to be employed in 1863. The white population, aside from the officials, is mostly British by birth or descent.

The population in the Dutch American possessions is as follows: Curaçoa, 25,203 souls; Aruba, 6,579; St. Martin, 4,526; Bonaire, 4,043; St. Eustache, 2,312; Saba, 2,458; and Surinam, or Dutch Guiana, 56,869. The population of Guiana, as given, includes about 1,000 soldiers and navy men, but not the Indians, nor the 18,000 or 20,000 bosch-negers, that is bush negroes, who ran away from their masters in slavery times, and their descendants, living mostly on hills, and forming the three tribes of Aukanians, Saramaccaus, and Bekou, or Moesinga. Slavery ceased in these colonies on July 1, 1863; the number of slaves then existing was 44,645, for all of whom the owners had paid at the rate of $125 per head in Surinam, and $80 to $83.50 per head in the other colonies. Efforts have been made to increase the laboring population, with the result, down to 1874, of importing nearly 10,000 coolies.

It is a well known fact that all the Spanish-American republics, and Brazil also, have, from the time of their organization as independent nations, been under the necessity of a constant struggle to prevent the Roman Catholic church from exercising an undue influence over the people in secular affairs, and to check the abuses of the clergy in other respects. In Mexico, Central America, Venezuela, Perú, Chili, the Argentine republic, and Uruguay, the liberal party controls public affairs. Colombia had for years shaken off the incubus of ecclesiastical intermeddling, and maintained a strict separation of church and state; she was, indeed, one of the most liberal nations of America, but within the last two years she has fallen under the sway of a despotic régime, in which the church seems to have a controlling influence, as will be shown farther on.

Ecuador and Bolivia, more especially the former, are yet in the hands of the priests, and ruled from the vatican. Ecuador is in fact a great farm of the Jesuits. But even here, in these two countries, liberal ideas gain ground, and the day is not far distant when they will prevail, and the ecclessiastics will have to keep themselves in their proper orbit. In Perú, after her disastrous war with Chili, the government is weak, and unable to apply any aggressive power against the clergy as formerly; the clerical party has been, consequently, regaining strength; priests, Jesuits, and monks, who for their hostility to the liberal spirit of the age, had been compelled to leave the country, have been returning in numbers, and working for the overthrow of liberalism, and for the restoration of their former control of the ignorant masses. In Chili no church property has been as yet confiscated, as it was long ago in Mexico, Colombia, Guatemala, etc. There are in Santiago alone, it is asserted, over 2,000 friars and as many nuns. The Jesuits were expelled from the republic on the ground that they conspired against the government. Relations between the Chilian government and the vatican ceased several years ago, because the metropolitan archbishop, having quarrelled with the executive, and been made to go into exile, the pope accredited a legate, ostensibly to use his best endeavors toward settling the

points in dispute; but it seems that this ecclesiastic assumed the right of censuring the government from the pulpit, for which he was given his passport, and conducted by a military escort out of Chilian territory. The catholic is, for all this, the state religion; but the radical wing of the liberal party is determined to resort to the severest measures, if necessary, to crush out the power of the clergy as a factor in politics. The conservatives, though not adverse to this result, prefer to move slowly, in order to avert revolution. The liberals, however, have succeeded in so crippling the authority of the church that the nomination of bishops has gone from the clergy and pope into the hands of the national executive. This power, which the Spanish crown exercised in colonial times under the title of patronato real, has been fought for and secured by several American governments, who thus nominate bishops, dignitaries, curates, etc., in their respective territories; in such countries no ecclesiastical edicts, except those of purely internal government, can be made public, without first obtaining the national executive's exequatur thereto. In other countries where the separation of church and state is complete, the right of patronato has been relinquished, but not that of supervision over the clergy to check abuses. In Colombia, the law made it imperative that a nominee to an espiscopal see in the republic should be a citizen of the country.

It is probably well known to those who are familiar with Mexican ecclesiastical history, that the tendency toward independence of thought upon religion in the country had its beginning as far back as 1770, when Bishop Fabian of Puebla published under the auspices of Archbishop (later Cardinal) Lorenzana, his "Missa Gothica seu Mozarabica," or liturgy that the Gothic christians of Spain used before the Roman liturgy was adopted, first by the Aragonese and later by the Castillians. Lorenzana and Fabian were prompted by a desire to revive the Mozarabic rite in New Spain, which was known as Missa de las Españas, and was still retained in Toledo and Salamanca. The old Gothic mass had been in old times printed with the title of Missa Mosarabum, thus named because the Arabs were masters of Spain, and the Christians of the country were then called Mosárabes, which means mixed with the Arabs. A further growth of liberal ideas was promoted fifty or sixty years later by the separation of Mexico from the mother country. Finally, the measures of Comonfort and Juarez reduced the power of the Roman church in Mexico. It is true that the Roman catholic is the prevailing religion in the republic, and that the church is governed by a number of archbishops and bishops; but church and state are independent of each other, and by law there is an absolute freedom to all religious creeds. There are upwards of sixty protestant churches with about 20,000 communicants. According to Rev. John W. Butler, of the Methodist Episcopal mission in the city of Mexico, protestantism in the country owes its origin to the seed sown by colporteurs who followed the American army in its march across the republic in 1847 and 1848; but the first protestant missionary who went into Mexico was Miss Matilde Rankin, about 1866. After acquiring the Spanish language in Brownsville she travelled as far south as Monterey, where she established a day and boarding school. After a while she sent out the more advanced of her male pupils into the adjoining towns and villages with tracts and testaments, and well instructed how to hold family services. The result of this work in a short time, was the existence of fourteen protestant congregations. A movement to form a Christian church distinct from the church of Rome was begun in Mexico in 1868; aid was asked from protestants of the United States in 1869, which being afforded, the "Church of Jesus" was organized in the city of Mexico. This protestant church had its origin in a spontaneous movement among Roman catholics of Mexico who claimed that they were purely and simply reviving the original creed and liturgy of the Christian church in Spain, for the purpose of securing "a greater liberty of conscience, a purer worship, and a better church organization." The membership of the church rapidly increased under the direction

of Bishop Henry C. Riley, who was consecrated by the protestant episcopal church of the United States, which church, as well as the church of England have afforded aid to that indigenous growth. The protestant denominations did not formally enter Mexico till 1870, at which time and since, representatives of the methodist-episcopal church, methodist-episcopal church south, four branches of the presbyterian church, and both branches of the baptist church, the congregational church, and two annual meetings of the quakers established work in different parts of the country. As a result of their united efforts they give in the middle of the year 1888 the following figures:—No. of centers of operation, 90; No. of congregations, 406; No. of ordained foreign missionaries, 52; assistant foreign missionaries (unordained men, and wives of ordained and assistant missionaries), 46; No. of foreign lady teachers, 43: whole number of foreign workers, 131. No. of native teachers ordained, 88; native teachers unordained, 65; native teachers, 96; other native helpers, 50; total number of native workers, 301. Grand total of foreign and native workers, 462. No. of church societies, 177; number of communicants, 13,000; probable adherents, 30,000; No. of training and theological schools, 10; pupils in same, 75; boarding schools and orphanages, 15; pupils in same, 687; of these, 242 are supported by the missionary boards, and 158 by indigenous resources; No. of common schools, 71; pupils in same, 2187; total under instruction, 2516; No. of Sunday-schools, 199; Sunday-school teachers and officers, 367; Sunday-school scholars, 4817; total membership of Sunday-schools, 5187; No. of publishing houses, 8; papers issued, 10; pages of religious literature since the establishment of evangelical presses in the country, 49,471,095; No. of church buildings, 73; approximate value of same, $333,400; No. of personages, 39; approximate value, $93,260; No. of educational buildings, 16; approximate value of same, $147,200; value of publishing outfits, $39,500; total value of mission property, $.94,260. Of the above, 16 chapels and churches were built without any aid from the missionary boards at home; nineteen of the same received only partial aid. Fifty-nine persons have met violent death on account of their religious profession, two of whom were Americans. Of the native teachers in Mexico, a number are sons of foreign workers; 37 foreign workers are sons or daughters of foreign workers; 9 are sons or daughters of ministers of the home field. It will be noticed that there are ten professional schools for the training of teachers and preachers. The catholic clergy continue their hostility to protestants, and as they still have a hold upon the laboring class, often threaten to excommunicate persons who do any work for protestants. The establishment of protestant churches has been favored by the national government, who a few years ago gave them a fine building in the capital. The state governments are also disposed to protect the protestants, and when peons cannot be employed, provide convict-labor to complete their houses of worship. Nevertheless, the lower classes are yet under the influence of the padre, and foreigners who may need to employ peons, will do well to conciliate him.

In Guatemala church and state have been separated since the overthrow of the clerico-oligarchic régime in 1871. The Jesuits were expelled in that year, and in 1872 the convents of friars were closed, and the property of the several orders was confiscated. In 1873 the consolidation of mortmain property, proceeding from pious endowments, capellanias, and legacies to the church, etc., was decreed. In 1874 the nunneries were closed, and the confiscation of their estates followed. Communities of religions of either sex under any form whatever were forbidden for ever. The old fuero eclesiástico was abolished, civil marriage was declared legal, and by law must precede any religious ceremony that the parties may desire. Priests, as in Mexico, are not permitted to show themselves in public, out of the church, with frocks or other ecclesiastical insignia. Almost unlimited freedom of religion was proclaimed, and does exist. Cemeteries were secularized. In 1883 a protestant chapel was established in the city of Guatamela. It may well be understood that these measures did not fail to meet with much hostility from the clericals; but they have been maintained in full force. In September, 1887, the archbishop, Ricardo Casanova, was exiled, because he had opened a campaign against these liberal reforms, demanding that they should be stricken from the national constitution. He sought to interfere in the management of the public schools supported by the government, and placed under the ecclesiastical ban a book entitled "Cartas á Eugenia." The archbishop is charged with having refused to obey any other authority than God Almighty and the pope. In Honduras, since the abolition of the monastic orders in 1829, there have been no convents. The clergy are mostly negroes, mulattoes, and mestizos, and have but little power, the church possessing no property whatever; and the priests having to depend entirely on fees, and on contributions of the devout for festivals, etc. The

head of the church is a bishop. Both the government and people are very liberal as regards religion. Freedom of worship exists by law, though the Roman catholic religion is that of the state. Salvador has had a considerable share of trouble in past years, resulting from the undue pretensions of the bishop and his clergy to control secular affairs, and in fact, to render the civil authority subordinate to the ecclesiastical; the struggle was a long one and cost much bloodshed, but liberal principles triumphed at last; the civil power is supreme, and freedom of thought and religion is recognized in the fundamental law of the land since 1872. In 1881 marriage was declared to be a civil contract. No convents have existed in Nicaragua since 1829, and there never was any nunnery. The government contributes a few thousand dollars toward the support of the catholic religion, which under the constitution is the state religion; but there is no law prohibiting other creeds. A number of the Jesuits who were expelled from Guatemala in 1871 managed to get into Nicaragua, and settle unopposed, but a few years later they were made to leave. Several friars expelled from other parts entered the country in 1872, but were not permitted to stay. Treaties of the republic with foreign powers guarantee to the subjects or citizens of the latter perfect religious liberty, and worship in private houses, chapels, etc. Foreigners may also have their own cemeteries. A concordat has existed since 1862 with the papal see, and dissensions between the government and the bishop of Leon, which were too frequent before, ceased. Costa Rica was at one time a part of the diocese of Nicaragua or Leon, but after many efforts, succeeded in being erected into a bishop's see on March 1, 1850. Under the concordat with the pope of 1882 the government has to allow the church $9000 a year, but it has generally allowed more than double this sum. The concordat places the clergy under restrictions; appointment of parish priests, and publications of papal bulls or briefs, and ecclesiastical decrees of importance must first be authorized by the government. Priests before taking charge of a parish must swear obedience to the national constitution, and that they will never disturb the public peace. There is little bigotry in Costa Rica, except among the lower people. The upper classes merely acquiesce in the pretensions and formulas of the church. The most perfect freedom of religion exists; those who are not catholics are protected by the liberal laws in the exercise of their worship. There is a protestant church and cemetery at the capital. Nothing has occurred to disturb the harmony existing between the government and the church since 1884.

From the earliest days of the Colombian republic there had been an intimate alliance between the government and the archbishop of Bogotá and other bishops, as well as their clergy. They rendered aid to one another. The clergy were wealthy, not only owning many valuable estates, but also holding mortgages on most of the others. The government soon opened its eyes to the fact, however, that such a power was incompatible with its independence, and dangerous to liberal institutions. The work of curtailing it gradually, from year to year, began. The ties between the two authorities became loosened after a time; but down to 1860 the clergy, owing to their great wealth, still exercised much influence in secular affairs. In the war of 1860 between liberals and conservatives, the clergy sided with the latter; the liberals were victorious, and the clergy lost their property, and with it their much abused power. Banishments of bishops and priests, suppression of convents and nunneries, and other measures, harsh and violent no doubt, but in many cases justified, followed. Since that period of the national history the church and state had been independent, but the latter did not relinquish its authority altogether. All religious sects, free from immoral practices, were recognized and protected by the laws, and several protestant congregations openly practised their forms of worship.

There is also a Jewish synagogue in the isthmus of Panamá. It may be asserted, at least as regards the isthmus, that there is no country in the world where religion is more free, and unrestricted by bigotry. The same thing cannot be said of other parts of the republic. Early in 1888 the bishop of Cartagena issued a violent pastoral against free masonry. The general government entered into a concordat with the pope, which virtually places public education under the supervision of the church. The following clauses speak for themselves: Article 12 says: In the universities, in the colleges, in the schools, and all educational establishments, public instruction and education will be organized and directed in conformity with the dogmas and teachings of the Roman catholic religion. Religion will be one of the obligatory courses of study, and the pious practices of the Roman catholic church will be observed. Article 14 is very strict and binding in it provisions, as will be noted. In the event that the system of religious and moral educa-

tion, notwithstanding the orders and recommendations of the government, be not in consonance with Roman catholic doctrines, then the diocesan will prohibit the professors or masters to continue instructing the scholars.

In Venezuela the Roman catholic is the religion of the state, but all other creeds are tolerated, though not permitted any external manifestations. Until Guzman Blanco became president the church ruled the people as it had some years ago done in Mexico. He broke its power by confiscating its property, expelled the Jesuits, suppressed friars and nuns, seized the convents, and turned them into hospitals and schoolhouses; one of the monasteries was transformed into a pest-house for leprosy and small-pox. The cemeteries were secularized and opened for the burial of the dead, of whatever faith. The archbishop for his open opposition to liberal measures was compelled to leave the country.

Ecuador may be said to be the only Hispano-American republic where the church exercises almost as much power as during the colonial régime. In fact, the country ceased to be a Spanish dependency, but it is a colony of the pope. The priests control the government, dictate the laws, and see to their enforcement. They rule absolutely for the sovereign pope, whose power is paramount, except on the coast, where foreign influences are felt. There is a law which forbids the importation of any book without the sanction of the Society of Jesus. This society was clothed with the same power it had in Guatemala in pre-Barrios times. The Roman catholic religion rules supreme; all other creeds are vigorously excluded. Quito is the seat of an archbishop, and Cuenca, Loja, Ibarra, Riobamba, Guayaquil, and Manabi, are bishops' sees. Nearly all the old religious orders of Europe still flourish in Ecuador. The people are kept in the darkest ignorance, and most abject condition. Notwithstanding the immense resources of the country, there is no industry worth speaking of, as compared with the other republics. A laborer gets from $2 to $10 a month, and is paid $2.25 for carrying on his back 100 pounds of merchandise upwards of 280 miles.

The religion of the empire of Brazil is the Roman catholic. All other religious creeds are tolerated, and the performance of worship is allowed within buildings, but without an exterior form of temples no one can be prosecuted for religious acts or motives. The government supports the Roman catholic clergy. The bishops and other church dignitaries are nominated by the emperor, who is grand master of the order of Christ. No decree of an œcumenical council, letter apostolic, or any other ecclesiastical statute, can be made effective in Brazil without having first obtained the exequatur of the sovereign, or of the general assembly. Marriages of protestants abroad, or in the empire, according to the civil law, are respected in all their civil effects. At the census of 1872 there were only 27,666 non-catholics in the country. Brazil is an ecclesiastical province, divided into twelve episcopal sees, that of São Salvador, which includes Bahia and Sergipe, being the metropolitan archbishopric, with its seat at Bahia. The other dioceses are São Luiz, Olinda, Rio de Janeiro, Fortaleza, Pará, São Paulo, Goyaz, Mariana, Diamantina, Porto Alegre and Ceará. Of the secular clergy there are, besides, twelve vicars-general, and about 2,000 parish priests. Tithers were long ago abolished as oppressive. A number of seminaries furnish instruction to those who intend to be priests, most of them subsidized by the government. The total amount appropriated for public worship, out of the imperial treasury, in 1887, was 908,250 milreis. The chief religious orders existing in the country are the Franciscan, Carmelite, and Benedictine; they are quite rich, and their members render themselves useful as teachers. In Brazil, as everywhere else in South America, the liberal party has made an active war against the power of the church. In 1870 a law was passed to abolish monastic institutions in the empire; but the religious orders were allowed ten years to dispose of their property and close up their affairs. Little or nothing has been done by the friars and nuns toward carrying out the law. In 1881 an attempt was made to forcibly close the convents, but an appeal was made to the courts, and it was only recently that the law was declared constitutional. The law also imposed a tax upon real estate owned by the religious orders, against which they also protested. Finally the government instituted proceedings to confiscate the property, and sell it for the unpaid taxes. Of course the orders claim that the pope alone is clothed with power to sell their property, and their writers, as their confreres did in other parts of Spanish America, filled the newspapers with accounts of the punishments that the Lord has inflicted in other lands on all who have deprived the church of its property, or purchased any of its real estate. Until within a few years ago the political leaders deemed it prudent to conciliate the priesthood, but the

liberal element has grown so rapidly that the fulminations of the church now fall harmless; they inspire no terror. The general public do not take much interest in the property dispute; the religious institutions will become extinct with the death of the few remaining monks and nuns. But the bishops and secular clergy have expected to inherit the property, which of course will not be permitted.

The government of the Argentine republic recognises the Roman catholic as the religion of the state, but all other creeds are permitted. In 1886 it contributed $215,000 for public worship. There are in the republic one archbishop and seven suffragan bishops, and five seminaries for the instruction of young men who purpose joining the priesthood. The government does not tolerate any interference on the part of the clergy in affairs which are not strictly of their province. Some time ago the papal nuncio attempted to interfere with the management of a school in charge of an American lady, whom he accused of proselyting the children to protestantism; she made him understand that he had no business there; the government sustained her, and made the nuncio leave the country. The archbishop flared up and he also was sent away. The city of Buenos Aires has a fine cathedral, which looks more like a bank or government building than a church. There are altogether about 24 catholic churches. The protestant community is also provided with places of worship and other conveniences. There are a church of England congregation, a Scotch presbyterian, an American presbyterian, a German evangelical, three methodist churches, and a Jewish synagogue. It is related that in 1884 the methodists celebrated the 25th anniversary of their mission work in the country with appropriate services, to which the general public was invited. As a mark of courtesy to the government invitations were sent to the president and prominent officials. President Roca and his cabinet accepted the invitation, went to the church, and took much interest in the exercises. At the request of the superintendent of the mission the president made a few remarks commendatory of the work of the protestant missionaries, to whose influence, he alleged, much of the progress of the republic was due. He desired them to enlarge their field. The president's remarks were highly praised by the liberal press; the conservative journals, on the contrary, censured him for attacking the religion of the great mass of the Argentine people. This is strong evidence that religious liberty is a fact in the republic. There are charitable associations supported by the foreign element of the population, and many more sustained by Argentines. Charity is a virtue fully generalized in the Argentine republic, as it is, indeed, throughout Spanish-America. The old Spanish advice "haz bien, y no mires á quien" is a reality in those countries.

In Uruguay the Roman catholic religion is recognized as that of the state, but there is a thorough freedom of religious thought and practice. There was a time when the archbishop claimed to exercise supreme authority in both political and spiritual affairs; but the church has seen its power gradually curtailed from year to year, civil functions which were formerly in the hands of the priests being taken from them, and placed in charge of civil officers. The priests must blame themselves for the loss of their prestige, for they would insist on enforcing principles and practices which were repugnant to the ideas of the present age; the result has been here as elsewhere, the progressive and educated class, constituting the bulk of the liberal party, refuse to recognize in the church any secular authority, and treat its mandates with scorn. The liberals care no more for the fulminations of the vatican than for the bleating of a sheep. The clerical party has been rendered powerless, the monks and nuns have been banished, the parish schools closed, and even the pulpits have been silenced. Public education has been taken out of the hands of the clergy, and the money which was formerly given for parish schools now goes into the general school fund. The registration of births, marriages, and deaths is now entrusted to civil officers. A civil marriage law, similar to that of France, was passed, and the church derives at present but little revenue for the solemnization of marriages. This civil marriage law roused the priests to resistance; they openly defied the authorities, and threatened to excommunicate every man and woman who contracted civil marriage. The archbishop formally made known to President Santos that the church recognized no such marriages, adding that the authorities had no right to say what should be discussed in the pulpit. No notice was taken of this protest, and the police carried out their orders. The papal legate protested, and he was made to leave the country within 48 hours. The archbishop then directed his priests to confine themselves to the celebration of the mass. All houses of religious seclusion, and all secret religious orders were abolished by the government. Monks and nuns were driven out of their monasteries; many took refuge in

private families, others went into hospitals and alms houses, but the majority took their departure from the republic. On the 1st of August, 1885, all nunneries, but one, were closed. The exception was one whose mother-superior was a sister of President Santa Maria of Chili; she determined to resist, and barricaded the house; but the police got in; finding only the superioress demanded where the sisters were, but she refused to answer; a search was instituted with the result that 45 terror-stricken women were found concealed, dragged out and with their chief expelled from the country. The sway of the church is gone; except among the women no sympathy is felt for the priests. Protestantism is said to be making progress. There are in Montevideo two protestant churches, and several schools for ordinary as well as religious instruction. It is understood that the methodist missions are very successful, especially among the Indians, in which they are encouraged by the government, though receiving no subvention. The Roman catholic cathedral of Montevideo, dedicated upwards of 80 years age, is a large, plain, but rather imposing building.

In Paraguay the Roman church is predominant, but the exercise of any form of creed is permitted. The bishop of Asunción is the head of the catholic church. Travellers who have visited Paraguay accuse the clergy, most of whom are Neapolitans, of gross immorality. The secretary of state of President Caballero is a Paraguayan of most progressive ideas, who was educated in the methodist mission at Buenos Aires, and is a protestant.

Bolivia is divided ecclesiastically into the dioceses of La Paz, Cochabamba, and Santa Cruz de la Sierra; the metropolitan since 1871 has been Doctor P. J. Puy y Solano. The Jesuits expelled from Perú settled quietly in La Paz, but during the autumn of 1887 a strong opposition arose against their stay, based on a decree issued for the expulsion of the order from Bolivia, as early as 1825 or 1826, by Mariscal Sucre, the first president of the republic.

Perú recognizes the Roman catholic religion as that of the state. An Archbishop is the head of the church, and he has several suffragans. From 1869 to 1876 the government subjected the clergy to the same harsh treatment they have received in the other republics, but in late years they have been better treated, and are regaining their old influence. The constitution discountenances the exercise of any other religious creed; but practically there is tolerance, which is made evident by the existence of Anglican churches, as well as Jewish synagogues in Lima and Callao. In 1876 there were in the country many thousands of non-catholics. However, no attempt at protestant missionary work has ever been made among the natives.

The religion of the Chilian people and state is the Roman catholic; but under the laws all other moral creeds are respected and protected. The clergy are subsidized by the government. There is one archbishop, that of Santiago, and three bishops, namely, of La Serena, Concepción, and Ancud. Upon the promulgation of the law legalizing civil marriages, the archbishop fulminated excommunication against all who should contract such marriages, but persons having to choose between excommunication and imprisonment, weddings have to a great extent gone out of fashion among the upper classes. Under the law as it formerly existed, if a protestant married a Roman catholic woman, he had to execute a bond to the effect that their offspring should be educated as catholics, and that he would abstain from doing anything to weaken their catholic belief. Moreover, he could not appoint to act as guardian of his children, after his death, anyone not a Roman catholic. A Chilian lady marrying a protestant had to donate $200 to the asylum for fallen women, as if by marriage she was partaking of their disgrace. It was also made obligatory on her to see that her children of such marriage should be brought up as catholics, and to use her best exertions to convert her husband to Roman catholicism. A large proportion of the church revenue was derived from marriages; the usual expense of a marriage was $25; the peons nearly all lived in concubinage, and more than half the children born in Chili were illegitimate. A marriage license now costs 25 cents. Concubinage is punished by fine and imprisonment. The new régime has also opened the cemeteries to all, Jew as well as Christian; the registration of births, marriages, and deaths, has been placed in charge of the civil authorities; nonsectarian schools have been established, and education has been made compulsory; persons who send their children to be educated by priests or nuns are mulcted. The fact stands that protestantism gains ground in Chili. There are several missions under the care of the presbyterian board of the United States; there are also several self-supporting churches and schools. There is a presbyterian college, and theological seminary, and a young ladies' seminary.

In the Dominican republic the Roman catholic is the prevailing religion. The head of the church is an archbishop, who still holds the rank of primate of the Indies, which was bestowed on the office in the early days of the Spanish domination. In Hayti the catholic is also the state church; but here as in the Dominican republic other sects are tolerated.

In the latter there are methodist and baptist churches, mainly supported by colored settlers from the United States.

In the Spanish colonies, Cuba and Porto Rico, the Roman catholic is the religion of the people and government; no other form of public worship is tolerated.

In early times there was only one diocese for the whole island of Cuba, eastern and western Florida, and, for some years, Louisiana. The original bishopric of Santiago de Cuba was in 1788 made an archbishopric, and the bishopric of Habana was erected. This arrangement has continued till the present time. Ecclesiastical affairs in Porto Rico are presided over by a bishop. These prelates are appointed by the crown of Spain, and confirmed by the pope.

The fundamental law of the United States grants perfect equality to all creeds and religions. Nearly all the religious creeds existing in Europe have representatives in the United States.

In 1887 there were in all forty-five separate religious bodies returned. The most numerous protestant bodies are the various methodist sects with 4,524,188 members; next the baptists with 2,732,570; disciples of Christ, 582,800; presbyterians, 968,761; congregationalists, 456,379; Lutherans, 987,600. The Roman catholics in 1883 claimed that their church had 6,832,954 adherents, but the membership was not reported. There are probably 700,000 Jews in the country, and 120,000 mormons. If to the total protestant membership we add an estimate of the families of members and adherents, the total attached to protestantism may be nearly 40,000,000. Of the religious belief of the rest of the population nothing is known. In 1887 there were 124,086 protestant, and 6,910 catholic churches. The number of Jewish synagogues may have been about 280.

I append in continuation some data on ecclesiastical matters as they exist in the British West Indies and Guiana:

Bermudas.—The ecclessiastical authority is the bishop of Newfoundland and Bermudas. The presbyterians and Wesleyans, like the episcopalians, are endowed. Bahamas.—The bishop of Nassau (of the church of England) is the ecclesiastical dignitary; a large portion of the population belong to his church. In the colony of British Honduras there is no established church. The clergy of the various denominations are supported by the members of the respective congregations, and in some cases aided by contributions from abroad. The existing congregations belong to the Roman catholic church, the church of England, Wesleyan methodist denomination, church of Scotland, and baptist church. The census of 1871, which is the latest enumerating the inhabitants by their religion, gave 9,320 protestants, 15,157 catholics, 68 heathens, and 165 not stated. There are several catholic parishes under the direction of Jesuit priests, three parishes of the episcopal church of England, one free church of Scotland (presbyterian), several Wesleyan methodist, and one baptist chapel. Until the year 1824 the church of Jamaica was under the jurisdiction of the bishop of London; but in July of that year letters patent were issued by King George IV, constituting the island of Jamaica, the Bahamas, and British Honduras a bishop's see, called the bishopric of Jamaica; Doctor Christopher Lipscombe was appointed the first bishop. The next year an archdeaconry was also constituted in the island, with Doctor Edward Pope as archdeacon. The salaries of the two dignitaries, $20,000, and $10,000 respectively, were made charges on the consolidated fund of England. Bishop Lipscombe took possession of his see in 1825, and at his death in 1843 was succeeded by bishop Spencer, who was transferred from the see in Newfoundland. The colony at this time was divided into three archdeaconries, whose salaries were paid by the imperial treasury from the consolidated fund. Doc-

tor Courtenay became titular bishop of Kingston in 1856. The staff of the clergy in 1860 was 1 bishop, 3 archdeacons, 22 rectors, 50 island curates, 15 missionary British and Island stipendiary curates, 5 substitutes for clergymen, etc.; the actual staff was 95 clergymen of all grades. The cost of this establishment was £7,100 to the imperial treasury, and £37,284 to the local government. A law of 1870 passed by the legislative council regulated the disestablishment and gradual disendowment of the church of England in Jamaica. A constitution finally adopted provided that the church should be governed by the bishop, his clergy, and the representatives of the laity, chosen by the registered male communicants, and by such of the non-communicants as might declare themselves to belong to no other denomination. Bishop Courtenay retired in 1879, and was succeeded by bishop Tozer, formerly bishop of eastern Africa; Tozer retired after six months on account of ill health, and Rev. Enos Nuttall was consecrated lord bishop of Kingston, and took possession of the diocese in the latter part of 1880. The revenue of the diocese in 1886 was £18,333 6s. 7d., including £2,193 112s. 9d. balance from the preceding year; the expenditure in 1886 was £15,154 1s. 0d., leaving a balance of £3,179 5s. 7d.

It was only toward the end of the 18th century that the catholic church was tolerated in Jamaica. The church was administered by a line of prefects apostolic until 1837, when the pope formed Jamaica and her dependencies into a vicarate apostolic. Father Thomas Porter became vicar apostolic under the papal brief of September 8, 1877, and still holds the position.

There are several other religious denominations in the island, Wesleyan, baptist, presbyterian, christian, and moravian; besides several Jewish congregations, to wit: Spanish and Portuguese; English and German; most of these are now the amalgamated congregation of Israelites.

In the Windward islands there are 17 churches and chapels of the established church, 3 Roman catholic, 11 Wesleyan, and 1 presbyterian. In the Leeward group about the same proportion prevails. The island of Barbados is an episcopal see of the church of England. British Guiana was made a diocese of the church of England in 1842. According to the official list the personnel of the see consists of 1 bishop, 1 archdeacon, 10 rectors, 14 curates, 2 incumbents, and several missionary clergymen and chaplains to institutions. The church of England is credited with 69 churches or chapels. The coolie mission society supports a number of missionaries and catechists. The church of England claims 20,000 communicants; the church of Scotland has 10 ministers. The Roman catholics also maintain several churches and missions. The church of England gets annually about $50,000 from the public revenue; the bishop's salary, $10,000, is paid out of imperial funds; the church of Scotland receives yearly $25,000, and the Roman catholic $12,500 from the public revenue. There are also 14 Wesleyan methodist ministers, a moravian mission, and several chapels of congregationalists and other sects.

The French colonies have their regular establishments. In Guadeloupe the catholics are under a bishop, and two vicars general. The bishop of St. Pierre and Fort de France is the head of the church in Martinique. In French Guiana public worship is in charge of a prefect apostolic. In the various colonies live many protestants, and Jews who are as much protected by the laws as the catholics.

In Dutch Guiana full freedom of religion exists as in the mother country. The bosch-negers, descended from negroes who ran away to the bush in slavery times, still retain some traces of their ancestors' connection with christianity. Their chief god, Grand Gado, has a wife named Maria, and a son named Gesi Kist. They also worship other minor gods. It is hardly necessary to mention that in the Danish dependencies the fullest liberty of conscience and worship is recognized. In St. Thomas about one-third of the inhabitants are catholics, 500 or 600 are Jews, and the rest mainly protestants.

The hopes of America, both Anglo-Saxon and Spanish, rest on the education of the masses, as well as on their material progress. The development of intelligence, and of true independence, will necessarily be slow; but governments do not lose sight of the fact that an ignorant people is at all times a dangerous element. In the United States there are more than six millions of persons, of the age of ten and upward, who can neither read nor write. Many of that number are, it is true, of foreign birth; but in some

sections, especially in the southern states, this ignorant class amounts to about 40 per cent. of the inhabitants. In the republic of Mexico the proportion of illiteracy is unfortunately much larger. The case in other Spanish-American countries is by no means better. However, it must be conceded that all men of prominence, both in and out of government circles, are alive to the importance of the subject, and use their best endeavors to promote the increase of schools both for primary and superior instruction. The female sex also takes a deep interest in the subject. The study of the English language is generally promoted in the Spanish-American countries. On the other hand, the people of the northern republic already understand the advantages of possessing the Spanish language. For the rapid development of the two Americas it is of vital importance that every intelligent and progressive person should be conversant with these two languages.

In Mexico, both the federal and state governments continue their efforts to promote instruction among the people. The clergy made much opposition to the liberal system of education which has been fostered by them, but free schools have been constantly multiplying all over the country. In some of the states education is compulsory, but it is not enforced as it should be. The national congress latterly discussed a bill to compel the attendance of children at the government schools in the federal district and in the national territories. The public schools are supported partly by the central and partly by the state governments and municipalities. Benevolent associations also render very efficient aid. There are high schools which call for improvement in their methods in order that they may duly fulfil their mission. The old university existing since the early days of the Spanish domination, was virtually suppressed in 1833 and definitively in 1865, making way for professional schools, of which that of law is the most popular, and that of medicine the most highly reputed. There are, likewise, schools of engineering, agriculture, and arts, all of which are from day to day developing their usefulness. In the mining states especial attention is devoted to mineralogy. The conservatory of music figures among the subsidized institutes, and about 40 per cent. of the pupils attending it are females. The attendance at the schools of mechanic arts and trades, chiefly those for the poorer class of the population, is quite large. Notwithstanding the mixture of races the Spanish language has preserved its purity to a remarkable degree with but few innovations or americanisms.

The number of colleges or professional schools for males existing throughout the republic in 1875 was 54, of which 12 were situated in the federal district, 5 in the state of Vera Cruz, 4 in each of the states of Jalisco and Yucatan; Guanajuato, Puebla, and Sinaloa had 3 each, and Campeche 2. The other states, excepting Tlaxcala, had one each. The territory of Lower California was also without any. The course of study in these colleges varies in each state, but all of them afford primary instruction. They teach the useful branches for the professional and mechanical pursuits, nautical and military sciences, together with commerce, agriculture, and other industries. In the year above named the number of scholars attending the colleges was 9,337. There were at the same time twenty-four ecclesiastical seminaries, attended by 3,800 alumni. The number of such institutes for the education of young women, did not, however, exceed fifteen, and they were situated in Durango, Guanajuato, Jalisco, Oajaca, Sinaloa, which had a private one; Vera Cruz, Yucatan, and the federal district. Vera Cruz and the federal district possessed four each. The whole number of young females attending these colleges was 2,300. The convents and other buildings which were confiscated from the church are used for schools. The lack of normal schools in Mexico ten or twelve years ago was made evident by the fact that the number of existing institutes of the sort was eight, and they were found in the following five states, to-wit: Durango with 1 normal academy; Guanajuato, 1 for each sex; Nuevo Leon, 1; San Luis Potosi and Sonora, 2 in each, 1 for each sex. There was also a high school for ladies in the federal district, which may be considered as a normal school, a number of ladies having graduated therein for teachers. How greatly public education has progressed in Mexico may be judged by comparing the then existing conditions with those of 1884 and 1886. In 1875 there were throughout the republic 5,843 primary schools, 603

of them supported by the federal and state governments, and 5,240 by the municipalities. There existed, besides, 2,260 private schools of the same class, including 117 supported by the catholic clergy; total, 8,103. The attendance at these schools was 349,000. In 1884 there were at least 8,586 primary schools, of which 2,116 were for females. The attendance was 441,453 pupils, of whom 115,147 were girls. In 1886 the public elementary schools were 8,486, with an attendance of 500,000 pupils. The institutes for superior and professional education were 158, with 17,200 attendants, against 134 with an attendance of 14,498 males, and 2,400 females, in 1884. The general government expended in the fiscal year 1883–84 for public instruction and kindred branches, $353,683, and appropriated $701,420 for the fiscal year 1885–86. The Lancasterian society of Mexico has promoted for many years past, with great succes, the monitorial system of Bell and Lancaster, first practised in England in 1797. The first school was opened in 1822. The society supports, in addition to its day schools, night schools for men, deriving the funds for the purpose from the contribution of its members, to which the municipality adds a small subsidy. The Benevolent Society, founded in 1842, by the philanthropic workingman Vidal Alcocer, maintains a number of well-managed schools. The Sociedad Católica, established in 1869, supports about twenty free schools, and zealously prosecutes its work.

Under a decree of President Barrios of Guatemala, dated in December, 1879, an excellent system of public instruction was established, compulsory as well as gratuitous, and embracing the following branches: Reading, practical rudiments of the country's language, the knowledge of objects, writing, linear drawing, geography and history, ethics, and good manners. Facilities are also afforded for gratuitous instruction in Spanish grammar, book-keeping, elements of natural history, geography and history of Central America, together with other complementary branches. There are institutes held for teachers at three places each year, which teachers are expected to attend, in order to profit by the new information which will be laid before them connected with their especial calling. It is understood that the teachers, all of whom are appointed by, and under the supervision of the minister of public instruction, are ambitious to acquire the utmost efficiency. Secondary instruction may be obtained in five academies or high schools, the most important of which is the Instituto Nacional, Central de Hombres, in the capital. Professional instruction is also furnished by the government, and four faculties are established to teach law (derecho y notariado), medicine and pharmacy, engineering, and philosophy and literature. There are, moreover, some especial schools, namely, for deaf and dumb, and the polytechnic to educate young officers for the army. Under the liberal institutions of the country, and the fostering care of the government, the public press has had a considerable development in the last fifteen years, many useful publications being circulated.

There is as yet neither a public library worthy of a place among the libraries of the world, nor any important bookstore.

At the end of 1885 Guatemala had 878 primary government day schools—540 for boys, 238 for girls, and 14 for boys and girls—and 48 night schools for artisans, and 1 Sunday school for working women. The attendance of pupils was 27,974 males, and 11,668 females; who were receiving tuition from 735 male, and 302 female teachers. The cost of these primary schools was $241,499, or $6.09 per pupil. There were likewise in that year 60 private schools, attended by 2,095 pupils, costing $84,154, and subsidized by the government to the amount of about $5,000. The Instituto Nacional at Guatemala is endowed with physical and chemical laboratories, a first-rate meteorological observatory, zoölogical museum, mineral cabinet, lecture rooms, and a good zoölogical garden. The corps of instructors consists of one director, and twenty professors. The establishment has 253 boarders, and 130 day pupils, besides 23 pupils in the normal department, and 11 free pupils. The annual cost of this institute is $19,839, or $180.75 for each boarder, and $105.30 for each day pupil. The Instituto de Belen for young ladies has one preceptress and ten female teachers, who are in charge of 112 pupils, and costs the nation about $78,000. A kindergarten is attached to this school. The Instituto de Oriente in Chiquimula is under one director and six professors. It has 33 boys—19 boarders and 14 day pupils. Still more important is the Instituto de Occidente in Quezaltenango, which has one director, twenty-two professors, and 221 pupils. The institute possesses cabinets of minerals and other natural objects, a chemical laboratory, and a meteorological observatory. In the same city is a similar school for girls, in charge of a director, and eleven teachers, which has eighty-two pupils. Each of the four courses of professional study is superin-

tended by a board of faculty, composed of a dean, secretary, and four members; and the four boards form a council, which has the sole administration of the professional schools. Forty professors are charged with instructing 133 pupils, at a cost of $24,904 to the government. The especial schools for teaching music and oratory, commerce, design, arts, and occupations, are attended by 243 pupils, and cost $21,762. The school for deaf mutes has nine pupils, and the polytechnic eighty. The latter receives pupils, who pay their own expenses, and are not obliged to join the military service; other pupils placed therein by the government are intended to be commissioned as officers of the army. In the military school a liberal education is afforded, including English and French, a thorough course of science, together with mathematics and drawing, in addition to a military training. There is good reason for saying that all these schools have been proving themselves very efficient. The total expenditure by the government for public instruction in 1885 was $2,394,449.

In Honduras the spread of education among the people was until within a few years very much neglected. In 1886 there were between 500 and 600 primary schools with an attendance of about 20,000 pupils. The Lancasterian system was introduced in Honduras, as in all Central America during the era of the confederation, and with some modifications has been continued. Within recent years greater interest has been manifested in educational matters; teachers have been introduced from Europe, and larger appropriations made. In June, 1888, the government resolved to establish mixed schools in all the towns and villages, where it is not possible to have separate schools for boys and girls. Boys of 12 years and upwards would not, however, be admitted into such schools, and only elementary branches will be taught. Honduras has two universities, so-called, one at Comayagua, and another at Tegucigalpa, with chairs of law, medicine, and theology.

Salvador has always advocated and favored public education. Public instruction is compulsory, and within reach of nearly all the Salvadorans, there being one school to about 2,000 inhabitants. The report of the department for this branch of the public service announced in 1888 the existence of 375 schools for boys and 184 for girls, with a total attendance of 21,101 pupils. The expense of these schools amounted in the past year to $203,509. The republic possesses three universities, situated at San Salvador, Santa Ana, and San Miguel, respectively; one ecclesiastical seminary, one botanic garden, schools of agriculture, drawing, and medicine, and a military academy. In the university at San Salvador there was in 1887 an attendance of about 350 students, studying law, medicine, and the applied sciences, besides 150 pursuing a classical course. There is a small national library at the capital. In 1885 the government resolved upon the creation of a school of mechanics. An academy of fine arts was progressing satisfactorily. The attendance numbered in 1888 seventy-two pupils, who were for the greater part workmen taking instruction in drawing, painting, and sculpture.

Nicaragua has endeavored to diffuse education among her people. The number of public schools has increased, and there are, besides schools of agriculture, mechanic arts and trades, new colleges, and a national library, on a small scale at present, but gradually augmenting the number of its volumes, etc. Teachers of both sexes have been introduced from the United States and Europe. There are no exact data as to the number of persons who can read and write, though as late as 1872, only 4,000 boys out of 12,000 of school-age, and 532 girls out of 18,000 were receiving instruction. At that date there were but 92 schools for boys, and 9 for girls, many of them being private. The salary of teachers in public schools was only $12 per month, or in the larger towns a little more. As a rule wealthy families sent their sons abroad, or to Guatemala to be educated. Within recent years the number of primary schools has been largely increased, and schools of agriculture, arts and trades, have been established, and teachers have been provided from abroad. In 1887 there were 251 schools with 11,914 pupils. There were in addition two higher schools for boys, and one for girls.

Costa Rica cannot justly be accused of having ever been neglectful in the matter of diffusing knowledge to the people. In 1856 there were public schools in all the towns of the republic supported by the supreme government, and others, in important places, kept by the municipalities. Nevertheless, education, down to 1881, was more or less under ecclesiastical supervision; but after that year it was placed under the direction of the national executive. The results have not been as yet quite satisfactory. The statistics of 1886 showed that 14 per cent. of the population could only read, and 12 per cent. read and write. There were on the 31st of December, 1886, 188 public schools with 10,830

pupils — considerably less than one half of the schools being for girls — and 72 private schools with 2300 pupils; making a total of 260 schools with 13,190 pupils, or one to every 15 inhabitants. Primary instruction is gratuitous and obligatory for all children of 7 to 14 years. In San José there is a college or university for secondary and superior instruction, and also a normal school. The report of the secretary of the treasury to congress in June, 1888, furnishes the following data:—The Liceo de Costa Rica, with 35 alumni, would cost in the fiscal year 1888-89, $34,620; the Colegio Superior de señoritas, $9,156; the Instituto de Alajuela, $10,500; for primary schools, $135,480; sundry expenses, including support of 8 pensioned pupils abroad, $4,800; subsidy to the American college at Cartago, $1,800; material and utensils for the colleges of secondary instruction, and foundation of a kindergarten, $6,000; and expenses for the physical cabinet, and chemical laboratory, $6,000. The total appropriations for public instruction and kindred branches in that year were $281,000. The expenditure of 1887-88 had ben $235,293. Costa Rica, like the other Central American states, has never lacked for well-educated men to fill with credit to themselves and their country high places in the liberal professions and in public life. The task of propagating knowledge is vigorously prosecuted, with promising success.

Colombia has made much progress in the last twenty-five years in the education of the people. The institutions for higher instruction, to which the national treasury made a yearly allowance during the existence of the federal system, were the university of Bogotá, and schools of engineering, natural sciences, etc., at the same capital, besides several others at different parts of the republic. Since the organization of the central régime public instruction throughout the country is in charge of the agents of the supreme government, and in future it will be under a more or less direct supervision of the clergy. In 1885 a treaty was concluded between the republic and Spain mutually guaranteeing and securing literary property; it was promulgated at Bogotá on the 22d of November, 1886. The number of public schools in 1875 was 1,159; in 1877, 1,625; though the state school fund for the latter year was only $880,017 against $508,779 in the preceding. There were 198 students at the normal schools. There is a national library at Bogotá.

The isthmus of Panamá boasts of several good colleges, and other educational establishments at the capital, including Miss Mary McCord's seminary for young ladies, and the Colegio del Istmo in which the higher branches of a first-class education are taught. In Colón there are two schools of low grade, and two of high grade, one in charge of Mr. H. d'Ogley, S. C. C., and the other is the methodist church school.

Education was made compulsory in Venezuela in the year 1870, at which time only 10 per cent. of the population could read and write. In the 14 years, 1872-1886, there has been an increase of 1,565 schools, and 84,385 pupils. The total number existing in 1886 was 1,787 (1,240 of them federal) with 94,561 pupils. The country possesses two universties, 6 first-class and 14 second-class federal colleges, 4 normal schools, 24 private colleges, 9 national colleges for girls, one polytechnic school, one of arts and trades, one naval, and one telegraphic school. All libraries and public collections of books formerly existing in public offices and suppressed convents, were concentrated in 1874 in the library of the university of Caracas, which now has 28,895 volumes. This library is open daily to the public. The national museum, founded in 1874, has numerous collections of natural and national history; in 1883 and since it has been enriched with ethnographical, zoölogical, and geological specimens and valuable samples of the natural products of the country. The amount appropriated for the support of instruction in the fiscal year 1887-88 was 3,343,992 bolivares.

In Ecuador the clergy have exclusive charge of public instruction, and thus far the republic has been kept far behind her sisters in South America. It is said that the people know more of the lives of the saints than of the geography of their country. There are, however, a national university at Quito, endowed with 12 professors, and usually attended by about 300 students; colleges in several large towns, and possibly 600 to 700 schools in the whole territory. An especial school at Guayaquil is open to Indian children. Whatever progress has been made in the instruction of the common people may be said to date from the death of the bigoted Garcia Moreno. But no liberal education to conform with the spirit of the age is to be expected in a country that is controlled by a clerico-oligarchy, such as that which prevailed in Guatemala during the rules of Carrera and Cerna.

Brazil is slowly but surely improving its educational system. It is somewhat meagre as yet. Public instruction is divided into three classes, primary,

secondary, and superior. The higher class is under the control of the central government, which supports two schools of medicine, two of law, a naval and a military school, a school of mines, and another of engineering, a polytechnic, a normal school for training teachers, a conservatory of music, a school of fine arts, an institute for the blind, another for the deaf and dumb, several reformatory schools, and an industrial school on the plan of the Cooper Institute at New York. The primary instruction in the capital is under the direct control of the supreme government, and in the provinces under that of the respective assemblies. Primary instruction is gratuitous, and the government is authorized to make it compulsory at the proper time. It has been made so already in several provinces. Hitherto the little education acquired by the slaves came to them from the priests. Now that slavery has ceased to exist, provision must be made to educate the freedmen in order to make good, intelligent citizens of them. In 1885 there were 5,529 public, and 957 private schools, and 286 colleges, with a total attendance of 435,997 pupils. The budget of 1887-88 appropriated 560,180 milreis for primary instruction. In 1881 there were 1,902,455 persons of school age (6 to 15). The number of illiterates was set down at 8,865,997.

The governments, national and provincial, as well as the people generally of the Argentine republic, largely devote their attention to public instruction, which is divided into primary, secondary or preparatory, and scientific or superior. Primary instruction in the federal capital and in the national territories is under the central government, and free; in the provinces, under their respective governments. In 1885 the total sum of $3,516,795 was appropriated for elementary instruction. In 1886 there were 2,415 elementary schools, with 5,348 teachers, and attended by 180,768 pupils, an increase of 63 schools, 612 teachers, and 12,390 pupils since 1885. In 1869, out of 413,465 children only 82,671 were taught in public or private schools. In 1885, 168,378 out of 503,691. The secondary or preparatory education is controlled by the general government, which supports 15 lyceums (1 in each province and 1 in the capital), with 369 professors, and an average attendance of 3,150 pupils. For superior education there are 2 universities, with chairs of law, medicine, and engineering; there are also especial schools of mining and agriculture, as well as a military and a naval school. The country is likewise well provided with normal schools, namely, 15 for ladies with 155 teachers and 3,600 students, and 6 for men with 94 teachers and nearly 1,800 students. To the above must be added the national observatory at Córdoba and a meteorological bureau. Buenos Aires, the national capital, had 54 educational establishments, 40 of which, ready to receive 22,200 children, were opened in October of 1886. During this year, $3,500,000 were expended on the schools, an average of $1 to each inhabitant of the republic. More Argentines go to England than to the United States to perfect their education. English universities advertise in the republic, and American colleges do not. But the Argentines hardly need to go abroad for educational purposes; their system is as good as any they will find outside of their country. Comparing results in the three principal countries of South America, the Argentine republic, Chili, and Brazil, the first named is considerably ahead of the other two as regards public education. Chili attempts a close competition with the Argentine republic in this and other modern improvements. The amount expended by that government for educational purposes is $10.20 per pupil yearly; in the United States the average is $8.70; in Germany $6; and in England $9.10.

In Uruguay primary instruction is obligatory and gratuitous. In cities and towns there are public and private schools, but in the rural districts educational facilities are scarce. The republic possesses also several preparatory schools for higher instruction, and a university at Montevideo. There are also a school of arts and trades, and a military academy. The public library has upwards of 20,000 volumes, besides a large number of valuable MSS. In 1886 there were 841 public primary schools, with 631 teachers and 28,380 pupils (15,287 boys and 13,093 girls), costing the government in 1885 the sum of $500,748. In the same year there were 429 private schools, with 856 teachers and 20,899 pupils, of whom 11,531 were boys and 9,368 girls. Among the private schools were those of the religious orders and societies, with 192 teachers and 8,004 pupils (719 boys and 2,285 girls). The school of arts and trades has 251 alumni. The military academy affords instruction in mathematics and physical science, French and German languages, drawing, gymnastics, fencing, military tactics, etc.

Public education is becoming slowly developed, the government exerting itself to accomplish as much as its meagre resources will permit. It is nominally compulsory, and enforced where it may be done. In 1885 there were 49

public schools, with 5,676 pupils; 59 private schools, with 1,424 pupils; a national college, with 150 students. In 1887 only 20 per cent. of adult Paraguayans and 60 per cent. of adult foreigners in the country could read and write.

Bolivia has experienced considerable difficulty to preserve her independence from ambitious neighbors. Isolated, and deprived in a great measure of intercourse with foreigners, her people have necessarily remained more illiterate and bigoted than those of the other Spanish republics. Hardly any effort has been made to educate the cholos, even in the towns, and certainly none at all to improve those dwelling in the country. The Indians beyond the Andes are wild, and recognize no masters or laws. It must be said, however, that in recent years some prominent men have given their attention to the cause of education. In 1887 a college was founded in Oruro for not less than 50 students, and another at La Paz on a large scale. In 1884 there were probably from 350 to 360 schools of all grades, of which about 60 were for females. The attendance at the schools and the three or four universities, so called, was only 12,000 pupils, or about five per cent. of the population of school age.

The government of Peru has adopted the policy of educating the Indians—composing nearly five-sixths of the population—so as to render them capable of enjoying the same rights and privileges as the whites. All taxes collected from them are to be exclusively applied to that purpose. The powerful Huaraz tribe, through their head chief, Pedro Atusparia, on making their submission, begged the president to have their children educated. President Cáceres took personal charge of the education of the chief's son. Primary instruction is gratuitous and compulsory in Peru, public schools being provided by the municipalities. The government supports high-schools at the capitals of the departments, and in some provinces the pupils pay a moderate fee for their tuition. In Lima exists the most ancient university in America, that of San Márcos, with chairs of law, medicine, political science, theology, and applied science. Lima has, besides, a school of mining and civil engineering, created in 1874, and possessed of good collections and laboratories. There are private high-schools in several of the principal towns, under the direction of English, German, and Italian teachers. The capital possesses a public library with a rich collection, besides the libraries of the university and mining school. Cuzco and Arequipa have each a minor university.

During the period Lima was occupied by the Chilian army the national library suffered greatly. The Chilian commanders have been accused, probably without good reason, of having permitted their soldiers to despoil the magnificent collection; the building of the library seems to have been one of those in which the Chilians were lodged. Manuscripts of inestimable value were, after their departure, found in drinking shops and groceries, mutilated and used for wrapping paper; they had been exchanged for rum and tobacco. It has been also said that numbers of the most valuable documents were shipped off to Chili to fill private shelves, as well as those of the national library at Santiago. Only a small portion of such documents has been recovered. Efforts to reëstablish the library have met with success. Private parties have made liberal and generous donations to it. The United States government and the Smithsonian Institute at Washington have contributed many volumes. The French republic has also contributed to enrich it; many important exchanges have been effected with institutions of a similar class in America. The library before its spoliation, consisted of 56,127 volumes. When the Chilian forces departed there were less than 80 left, which were scattered on the floors, amid the burned shelves, broken desks and general ruin of the building. There were already in March, 1888, about 33,000 volumes. Besides the San Cárlos, there are five lesser universities. At the breaking out of the war with Chili, which was so disastrous for Peru, the latter possessed also 33 colleges for boys and 18 for girls, about 1,600 schools for boys and some 750 for girls, to which must be added a considerable number of private schools.

In Chili education is warmly fostered. It is divided into three grades, to wit: primary, secondary, and superior or professional.

The whole is gratuitous and at the cost of the state. The national university at Santiago is well conducted and endowed. Secondary and professional instruction is provided in the university, which justly stands high with its thirty-seven professors, in the national institute of Santiago, and the lyceums and colleges established at the capitals of the several provinces. The branches taught are law, medicine, mathematics and other sciences, and fine arts. The number of students inscribed for the study of these branches in 1886 was 968. The total number of students under superior and secondary instruction in that year, that is to say, in the university section and the provincial lyceums, was 5,900. There are also normal schools, an agricultural

school with a farm, and other especial schools, such as ecclesiastical seminaries in various parts, a military academy at Santiago with 115 cadets; a naval one at Valparaiso with seventy cadets and a marine library; schools for music, painting, and sculpture, as well as polytechnic institutes, and a school for arts and trades, all supported by the government. There were 862 public primary schools with 78,810 pupils in 1886, the average attendance being 47,780, and 532 private schools, with an inscription of 28,242. In 1875 more than half the population could neither read nor write. In later years there has taken place a very great change; on an average one child for every 24.70 inhabitants goes to school. Masters are also provided to teach in prisons and barracks. Altogether there are upwards of 1,300 educational establishments. There are, moreover, a national library with about 60,000 volumes, twenty-four or twenty-five provincial libraries, having together 60,000 more, a museum and observatory. The expenditure by the government for the free schools in 1884-85 was $2,303,800, and by the municipality $90,000. The ecclesiastical seminaries are supported by the archbishop and his suffragan bishops.

In the republic of Santo Domingo public instruction is in a deplorable state of backwardness. In the capital the municipality supports an institute where law, medicine, surgery, and mathematics are taught, and only twenty students attend. This is the university which at one time was of the best in the new world. There is also a normal school, and several preparatory schools, all supported by the city. There are two private colleges, and throughout the republic about 360 or 370 schools, with 736 teachers, and 19,250 pupils, supported by the municipalities, besides six cloister schools, and seven protestant mission schools. In 1875 there was also an academy of music. The republic of Hayti is in a worse condition even. Little is done there to spread instruction among the masses. There are some public and private schools, however. Young men and women whose parents are in affluent circumstances are generally sent to France to be educated.

In Cuba and Porto Rico education has failed to receive that attention which its importance demands. In earlier times it conformed to that of Spain, and afterwards was gradually modified. The university of Habana, erected under a pontifical bull of 1722, for a long time bore the title of Real y Pontificia. On being secularized the old system of philosophy taught in it gave way to modern thought. The institute has a rector and thirty professors, with medical and law schools, etc. The church has a seminary in Habana, and another in Santiago de Cuba. There is an institute called Real Colegio in Habana and a similar one in Puerto Principe. Education was made obligatory in Cuba in 1880, and in 1882 there were 34,813 children attending school. There are probably 250 to 300 public, and as many private primary schools. A very large portion of the population, including the white, receive no education whatever. Prior to the rebellion of 1868 much interest was manifested among the creoles in the cause of public education. The expenses for public instruction in the higher branches are paid from the public revenue; those for primary instruction are defrayed by the municipal councils; the aggregate expenditure for all branches being probably $2,000,000 a year. In Porto Rico primary instruction is very backward. The government decreed in 1887 that a portion of the direct local taxation be expended on gratuitous popular education. Measures have also been adopted to facilitate the sending by the scattered rural population on the plateau, mostly small planters and farmers, of their children to the schools provided for them.

In the United States all matters pertaining to education are entirely controlled by the several states, each one of which maintains a system of public instruction independently of the others; though differing in details the general features of those systems are common to all. Thus it is that public instruction in the United States has an individuality distinguishing it from the educational systems of other countries. Primary instruction is afforded in every state at public expense. Attendance is not generally compulsory, but there is an increasing tendency among educators toward recognizing in the state the right, as well as the duty, of instructing its entire population of the school age. The public schools are free from all sectarian intervention, and sectarian instruction is generally avoided, though the bible is

read in them as a daily exercise. The country is well endowed with universities, colleges, special schools, private schools, and many educational institutes maintained by the various religious denominations. The number of public libraries is very large; in fact there are many states where hardly a town exists without a library. Attention is called to the following statistics:

Universities and Colleges in the United States, 1885-86.

Number of colleges	345
" " preparatory instructors	830
" " " students	25,408
" " collegiate instructors	3,890
" " " students	31,665
Income from productive funds	$ 2,736,589
" " tuition fees	$ 1,563,433
Volumes in collegiate libraries	3,003,283
Value of grounds, buildings, and apparatus	$43,565,413

Theological Seminaries, 1885-86.

Number of seminaries, 142 with 806 professors, and 6,370 students; of which 19 were Roman catholic, with 145 professors and 920 students.

Public Schools, 1885-86.

Estimated number of children, between six and fourteen years	10,928,943
Number enrolled	10,456,799
Average daily attendance	7,279,616
Expenditures for public schools	$111,294,930

Of which over 56½ million dollars formed the aggregate of teachers' salaries.

Illiteracy in 1880.

Whites who cannot read—native	2,255,460	
" " " —foreign	763,620	3,019,080
Colored, including Chinese & Indians		3,220,878
Total		6,239,958

The above out of a population of 36,761,607 aged ten years and upwards.

Libraries in the United States With More Than 100,000 Volumes Each, 1886.

Founded	Libraries	Volumes
1872	Public library of Illinois at Chicago	119,570
1807	Boston Atheneum	150,261
1852	Boston public library	434,837
1638	Harvard college	232,800
1818	New York state library at Albany	128,871
1849	Astor library in New York city	223,284
1820	Mercantile library association, N. Y.	210,431
1867	Ohio public library	142,153
1731	Library Co. of Philadelphia	150,000
1821	Mercantile library Co. of Phila.	152,000
1849	State historical society at Madison	116,750
1887	Sutro library, San Francisco (private)	110,000
1700	Yale college library at New Haven	125,000
1789	Lib. of U. S. House of Reps. at Wash.	125,000
1802	Lib. of U. S. Congress at Washington	565,134

Notice is due to the Bancroft library of San Francisco, an especial library devoted to the Pacific coast, containing upwards of 50,000 volumes, and the private property of the historian Hubert H. Bancroft.

The British colonial possessions in the West Indies and South America have made adequate provision for the education of the people. In some of the colonies public instruction has been left to private enterprise or to the several religious denominations, though a number of them are aided from the public treasury; and in others there is a government system of schools.

The legislature of Bermudas granted in 1889 a sum of money to aid elementary education. The central control is vested in a board of education consisting of the governor and eight other members. The local management is nominally in the hands of each parish vestry. All the schools are private schools charging fees. Attendance is compulsory; and there were, in 1885, 23 schools with 1,293 scholars; in 1887, 47 schools with 1,400 pupils; 22 of the schools receiving government grants annually. The Bahamas had in 1886, 121 schools with 7,038 pupils; a number of the schools were entirely supported by the government and tuition in them was made free in 1885; others were receiving subsidy from the colonial treasury; there were among those above given several private and denominational schools. The compulsory clauses of the school law are enforced only in Nassau. The government grants amounted for 1886 to about $15,750. In British Honduras the schools are denominational, inspected and aided by the government. Twenty-two schools received aid in 1884 to the amount of $9,734 with 2,316 scholars on the roll, and an average attendance of 1,441. In 1886 the number of schools was 26 and that of the pupils 2,486. Elementary education in Jamaica is under private management, aided though, since 1867, by grants from the colonial treasury. The number of schools in 1886 was 687 with 60,954 pupils; the government grants amount to $108,255. There are three classes of schools. Eleven branches are made subjects of examination at the annual inspections of the schools, which are as follows: chief subjects, reading, writing from dictation, and arithmetic; secondary subjects, scripture knowledge, general knowledge, grammar and composition, geography and history, handwriting, singing, organization, and discipline. Extra grants are paid for teaching girls to sew. There is a college at Stony Hill for training school-masters for the elementary schools of the island. The number of students in attendance is about 30, and 8 trained masters are sent out yearly, on an average, many of whom have been very successful in the management of schools. There is also a college for training female teachers near Kingston. The students are in most cases boarded and lodged at government expense during the period of their training, subject to an undertaking on their part to teach in Jamaica elementary schools, for as many full years as they remain in the college. The ordinary course is three years. There is no official provision for secondary or technical instruction; but there are some endowed schools, and some scholarships tenable at the English universities. The Institute of Jamaica comprises a library, reading room, and museum; provides for the reading of papers, delivery of lectures, etc., and holds examinations on subjects connected with literature, science, and art: awards premiums for the application of scientific and artistic methods to local industries; and, finally, provides for the holding of exhibitions illustrative of the industries of Jamaica. In Turk's Island there are six elementary schools with an attendance of over 800 children. The schools are unsectarian and free. There are, besides, two Wesleyan schools with 85 students, and some small private schools. In the Leeward Islands education is denominational, the schools receiving subsidies from the local revenue of each presidency; school fees are charged, and the schools are bound to receive all children who apply for admission. There were in 1886, 16 aided schools, attended by 6,870 pupils, besides private schools. Grants are also made of $1,000 each to grammar schools established in St. Kitts, and Antigua. No provision has been made for technical education. In Grenada there are 2 government elementary schools, and 23 aided schools. The local management is in charge of the ministers of the several sects, but the central control is vested in a board of education. There is also a grammar school partly supported from the public funds. In 1885 the average attendance at the schools was 1,804 children. Barbados has a government system of elementary education which authorizes an expenditure not exceeding £75,000 a year. The central administration is vested in a board appointed by the government, and the local management is in charge of the clergyman of the district assisted by the school committee. The island has one college, and two first-grade schools, with 251 pupils, 1 second-grade with 179 pupils, and 128 elementary schools with 20,000 pupils. Education is fostered by both the government and the community. The Windward Islands had in

1886, 92 schools with an attendance of 9,911 pupils; the government allowed for them $23,400. Education has made considerable progress in the island of Trinidad. The schools are either secular or denominational, both receiving aid from the colonial treasury. For higher instruction there are two colleges, one of which is the Queen's Royal College (secular), and the other is a Roman catholic. The primary schools in 1887 numbered 108 — 50 secular and 58 denominational. Fees are exacted and paid regularly—3d. per head per week; at some schools the charge is 2s. per month, and at the model ones, 5s. per month. There is a training institute for male teachers admitting 19 students. The total number of students attending the schools in 1885 was 10,422. Elementary instruction is aided by the government in British Guiana. The schools are denominational except those maintained by the state. The central administration is vested in the inspector of schools, and the local control is in the hands of managers, who are usually ministers of religion. The number of schools receiving aid in 1886 was 160 public schools with 18,919 pupils, besides the private ones with 6,700 pupils. The aid amounted to 79,815. There is a government college at Georgetown which affords a course of instruction similar to that of a first-grade grammar school in England.

The French, Danish and Dutch possessions have also made suitable provision for the education of children.

The republic of Mexico owes to the municipal governments, rather than to the federal or state authorities, the maintenance of her really fine charitable institutions. To those municipal rulers is due the survival of very many of the ancient benevolent foundations of the capital and other cities, and the foundation of several new ones.

The hospital of Jesús Nazareno in the city of Mexico, founded by the conqueror Hernan Cortés, and for the maintenance of which he left an endowment, has been much improved and enlarged in the last 300 years; it is a very curious building. The hospital of San Hipólito, which had been in charge of the order of Hipólitos, was founded by Bernardino Alvarez. The order was suppressed by decree of the Spanish córtes in 1820, but the property of the order, which when liquidated amounted to $187,000, passed under the control of the municipality, and the income from it was applied to the support of the hospital, until President Santa Anna ordered the fund covered into the national treasury, which action put and end to it. However, the municipal government assumed charge of the institution, and has since maintained it. The building was in 1848 much improved. The Morelos hospital, formerly the San Juan de Dios, a very old institution, was in charge of the Juaninos when this order was suppressed in 1820; the hospital was shortly after closed; but by the exertions of the philanthropist Gaspar Ceballos, it was reopened in March, 1845. It is known as the Morelos, but more commonly as the San Juan de Dios. The hospital of the Divino Salvador, for insane females, was in the latter part of the 17th century placed in charge of the Jesuits, who held it till their expulsion in 1767. After that it was greatly improved by the government. This excellent charity has been allowed to exist through all the changes of government. Its income was seized in 1861, but restored in 1863. The hospital of San Andrés was founded in 1779 by private endowment during a small-pox epidemic, and when the epidemic disappeared, the institution was continued as a general hospital. It came to possess a large property at one time, which under the reform laws of the republic was passed to the government. The municipality has since supported it. One of its departments is for the treatment of diseases of the eye. The Hospital Municipal Juarez, better known as the San Pablo, is an institution that dates since 1847, during the war with the United States. The hospitals of San Hipólito, and San Lázaro have been merged into it. The Casa de Maternidad was opened in 1865 during the rule of Maximilian, with appointments conforming in every way with the best French models. Maximilian's wife, the hapless Carlota, took such a deep interest in the institution, that after her return to Europe she sent for its use a complete set of surgical instruments, and later $6,000 for its support. There is an admirable institution, the best arranged and best appointed hospital in the city, called the Concepción Béistegui, founded under the provisions of the will of the lady whose name it bears. It was opened in March, 1886. There are other hospitals in the city of Mexico, to-wit: the San Lúcas (military), the fine private hospitals of the American, French, and Spanish benevolent societies. The American was opened in 1886, and needs the contributions of Americans.

for its support. The Cuna or foundling asylum was founded in 1766, under the auspices of archbishop Lorenzana, and its constitution was approved by the crown in 1774; the royal order declared that the archbishops of Mexico should be the rectors of the institution in perpetuity. It also provided that the children reared in the house should be considered as legitimate for all civil purposes, and therefore capable of being called to fill all public offices, and to receive honors like good citizens of known birth. The children were all to bear the patronymic of Lorenzana that they might have an honorable name, and perpetuate the fame of the founder. At one time the institution possessed property worth nearly a quarter of a million dollars, but most of it disappeared during the revolutionary times. The charity is now maintained at the cost of the municipality. There are accomodations for 200 foundlings, who, besides being cared for, are taught reading, writing, arithmetic, grammar, drawing, sacred history, Christian doctrine, and good manners; the girls receive instruction in sewing, embroidery, and music. The Hospicio de Pobres, or asylum for the indigent, was founded by the precentor of the diocese, Dr. Fernando Ortiz Cortés, and opened in 1774. In 1783 its demands had so greatly increased that the government granted it $1,000 monthly out of the lottery fund. In later years the municipality assumed the entire control of the asylum, which is divided into separate departments for old men, old women, boys, and girls. The number of its inmates is 800. The Monte de Piedad, or Mont de Pieté, is a national pawn shop, where loans are made at a very low rate of interest to the needy, who leave some effect in pawn. The average annual loan on pledges amounts to nearly $1,000,000, distributed among 40,000 to 50,000 borrowers. There are several other charities in the capital, to-wit: the Escuela Correccional de Artes y Oficios, founded in 1881; the Tecpan de Santiago industrial school for orphans, founded in 1841, and having 1,300 pupils; the Escuela de Artes y Oficios for women, founded under the auspices of President Juarez in 1871; another school of the same kind for boys; the Escuela de sordo-mudos (school for deaf mutes), founded in 1867; the Escuela de ciegos (school for the blind), founded in 1871; and the Asilo de mendigos (asylum for beggars), existing since 1879.

Other cities are also provided with charitable institutions; it would occupy too much space to enumerate them all. I will therefore only refer to a few of them.

Puebla, the second city of Mexico, has been considerated the sacred city, containing, as it did, upwards of 60 churches, 13 nunneries, 9 convents, 21 high theological schools, and many academies, charity schools, hospitals, and other benevolent institutions. The most noted among the churches is the famous cathedral. There are three hospitals, one of which is for the insane, maintained in the best condition. There is an asylum for foundlings and one for indigent ecclesiastics; the hospicio, or refuge for the indigent, which was opened in March, 1832, and in which several kinds of fibers are woven, is among the institutions entitled to high commendation.

Guadalajara boasts of two public institutions which are worthy of especial notice; one is the Hospital de San Miguel de Belen, which is not only a hospital proper, comprising male and female wards, but contains also a lunatic asylum, and a school for little children. Next to the building is the chief cemetery, with three sides of its area bounded by walls and colonnades, and the inner surface of the walls divided into tiers of niches, wherein dead bodies are deposited. The other institution is the Hospicio, a building occupying 24 large blocks, which affords an asylum to foundlings and orphans, the blind, deaf and dumb, the infirm of all ages, and old people who are indigent and unable to earn a living. A department of the building is a reformatory and training school.

Querétaro has a fine hospital, and other benevolent institutions.

Morelia has two asylums, or houses of refuge, one for each sex, a hospital, and two cemeteries.

Guanajuato possesses a hospital and a charitable institution among its other fine buildings, one of which is the famous Alhóndiga de Granaditas, a public granary.

Vera Cruz has among its public buildings three hospitals and several other charitable establishments.

In Central America are found almost all the charities which the needs of the poor and helpless call for.

In the city of Guatemala the government supports an asylum for orphans and invalids, a large central hospital where 400 patients are cared for daily, and the military hospital is in the suburbs. The penitentiary is well conducted

and the house of correciton has extensive work-shops in which good work is done. Quezaltenango has also some benevolent institutions, namely, a good hospital, female orphan asylum, convenient public buildings, a suitable penitentiary, and like the capital of the republic, lavatories where the native women do their washing. In 1883 the government supported nine hospitals, one each in Antigua, Amatitlan, Escuintla, Quezaltenango, Retalhuleu, and Chiquimula, and three in Guatemala. In these, 11,998 patients were treated during the year, with the result of one death out of thirteen persons treated.

Honduras, Salvador, and Nicaragua have also provided in their chief towns hospitals and other institutions for the relief of the indigent, orphans, etc. Costa Rica has two hospitals in San José and one in each of the towns Alajuela, Cartago, Guanacaste, Puntarenas, and Limón. The number of patients treated in the seven hospitals on the 1st of January, 1887, was 99 men and 45 women; during the same year 943 men and 278 women entered; 797 men and 228 women were cured; 101 men and 52 women died; number remaining on the 31st of December, 1887, 144 men and 38 women.

Colombia, Venezuela, and Ecuador are not unmindful of their duty to provide for the care of the poor, sick, and helpless, aside from the relief unstintedly afforded by private charity.

Colombia has hospitals and other benevolent establishments in nearly all the chief centers of population. Bogotá, the capital, possesses among her notable buildings a foundling, a general, and a military hospital, a house of refuge for the relief and education of ophans and the children of the poor, and other charities. In Panamá there are several good hospitals, some maintained from the public treasury and others from the funds of the canal company. There is also one, deemed among the best, and known as the Foreign hospital, which is open to all who apply for treatment, and is supported by private contributions. We have good accounts, however, of all the establishments. In the island of Taboga the canal company keeps a sanitarium, which is highly spoken of. In Colón both the canal and railway companies support excellent hospitals, well situated on the northern and eastern shores of Manzanilla island. The canal company's hospital, by arrangement with the government, reserves a number of beds for the public. The republic of Venezuela has made good provision for the destitute, and Caracas boasts of three fine hospitals, one of them exclusively for lepers. Of Ecuador it is stated that outside of Quito and Guayaquil there is not a benevolent institution worth mentioning. This is, probably, too sweeping an assertion. Quito has several charities, among which are three hospitals—one of these exclusively for elephantiasis—and asylums for the blind and insane. Guayaquil possesses a civil and a military hospital, an orphan asylum, and several other charitable establishments.

Brazil boasts the possession of numerous establishments for the care of the sick and indigent, as well as of orphans.

Every city and town maintains such institutions from its own revenues, and a large number have been endowed by philanthropy, or aided by the contributions of the charitable. This is independent of private infirmaries. Rio de Janeiro has the famous hospital of Dom Pedro II, better known as La Misericordia, and several minor institutions of the same class in various parts of the city, a large and handsome lunatic asylum, which is said to have been founded with the proceeds of sales of titles of nobility at a fixed price. The military hospital is likewise a large establishment. Bahia, or San Salvador, has several hospitals, partly supported by lotteries. Pernambuco comprises among its public buildings the hospital of Pedro II, which affords treatment to about 5,000 patients per annum, and has French sisters for nurses; a foundling hospital, a poor-house, and a lunatic asylum built in 1881.

The Plata region and the republics of Peru and Chili have likewise provided charitable establishments for the sick and indigent, and for those who are unable to take care of themselves.

Most of the towns of the Argentine republic have hospitals and other charities. The federal capital, Buenos Aires, possesses two general hospitals, one for males and one for females, and also several foreign hospitals, supported by residents of various nationalities. There is a sanitary institute which is highly commended. There are, besides, a lunatic asylum, an asylum for the poor, a foundling hospital which was founded in 1779, a female orphan school,

an institute for the deaf and dumb, etc. I have before me the Anuario Estadistico of Montevideo for 1886, from which I take some interesting data on benevolent institutions in the republic of Uruguay. No information had been obtained from the departments of Maldonado, Rio Negro, Minas, and Flores; in that of Rivera there were probably no charitable institutions nor relief associations. In the department of Montevideo were in operation, supported by the government, a charity hospital, a beggars' asylum, the Manicomio Nacional, the asylum for foundlings and orphans, three maternal asylums, and the asylum for small-pox patients. There was likewise an English hospital, supported by private contributions, and the Italians were constructing one for their country people. For many years past the Sociedad de Beneficencia de Señoras has been rendering valuable services. There are, besides, several relief societies of various nationalities, which do not confine their membership to citizens of any one country. The department of Florida has one public hospital and several societies of mutual aid. Paysandú possesses one hospital in charge of ladies and eight mutual aid associations. In fact every one of the departments has the good fortune to possess within itself a number of such benevolent associations, the government also contributing with subsidies. In the department of Rocha a hospital was being constructed. The city of Colonia, as well as the departments of Salto and Tacuarembó, had a charity hospital each, and that of Soriano was on the point of commencing the construction of one. Asunción, in Paraguay, has a hospital and other means of relieving the necessitous. Perú has many charitable institutions, comprising hospitals and asylums of various classes. La Paz, Sucre, and other towns of Bolivia also maintain hospitals and other benevolent institutions. Lima possesses a large number, of which several are connected with the religious orders. There are also some which are sustained by foreigners. The city of Santiago de Chile possesses a house of correction for children, a military and two fine general hospitals, an insane asylum, a house of refuge, and many other benevolent houses; also numerous associations devoting their labors and funds to the relief of the sick and destitute in various forms.

The republics of the island of Santo Domingo have a few hospitals and other institutions for the care of the poor. There are also several benevolent societies.

Cuba and Porto Rico possess a number of charitable institutions and benevolent associations, and societies for mutual aid are not wanting. Each principal city has its hospital.

In Habana, the capital of Cuba, the following institutions are supported by the government, or the municipality, or by both: a civil and a military hospital, a foundling and orphan asylum, an insane asylum, and another exclusively for lepers, a poor-house, etc. The Sociedad de Beneficencia Domiciliaria of ladies has existed several years, and rendered much valuable aid to the needy. The cofradías, while intended partly for religious work, are understood to be mutual aid societies. There are also a few foreign associations to afford aid to the destitute of their respective nationalities. San Juan, Porto Rico, possesses a house of refuge and instruction for the indigent, an insane asylum, and other benevolent institutions.

Respecting the United States, it will suffice to say that almost every town of any importance is provided with hospitals, and that the country generally possesses abundant establishments for the relief of the poor, sick, and helpless, so that none need suffer for want of care. The hospitals and asylums for the insane are of the first order. There are probably between seventy and eighty of the latter, which are conducted according to the most advanced methods, and meet with much success in the treatment of patients, many of whom are thoroughly cured. The blind and the deaf and dumb are objects of especial solicitude, and care and instruction are afforded them in first-class institutes. Charitable societies of every kind and description, both religious and secular, as well as associations for mutual aid, abound everywhere, so that there is no exaggeration in asserting that no country in the world excels the United States in this respect.

The British possessions comprised in this work are also nearly all well supplied with establishments for the care of the destitute sick, and charitable associations, existing almost in every important town, afford aid and comfort to the needy.

In Jamaica there are 18 hospitals, situated at different places, having in 1886 an aggregate of 1,090 beds; the daily average of patients under treatment during the year is 652. Government dispensaries are established in remote districts, where medicines are dispensed and sold at fixed prices to all persons applying for them on the prescription of a medical officer, and where the medical officer in charge of the dispensary attends on fixed days to give advice at a moderate rate of fees. Medical advice for those who are unable to pay for it is afforded on a ticket system, which has been in successful operation during the past seven years. Among other charitable institutions are the Asylum for the lunatic, Union Poorhouse, and Lepers' Home. The charitable societies are the Young Men's Christian Association, Catholic, Hebrew, and Trinity Church; benevolent societies, the Good Templars, Merrick's, Fletcher's, Gray's, and Gregory's charities, and others.

The French, Danish, and Dutch colonies have also good provision made for the care of the indigent and sick, apart from the relief which is afforded by benevolent associations.

Mexico has from the earliest times produced men entitled to distinction for their scientific and literary attainments, made apparent in their writings.

The early chronicles have preserved a few of the lofty, really poetic sentiments of Netzahuacóyotl, King of Texcoco, which go to prove that the poet-monarch was the product of a high order of civilization. The Mexican race certainly possesses literary qualities, which manifest themselves on every favorable opportunity. This became evident in the works of native Mexicans soon after the conquest, such as those of the two Ixtlilxochitls, the Tovars, Tezozomoc, Niza, Camargo, Zapata, Mendoza, Pomar, Agüero, and the brothers Ortega, to whom is due most of the knowledge we now have of Mexican primitive history. They all lacked embellishment, however, resulting from poverty of language. This defect disappeared as soon as the Mexican Indian mastered the Spanish language, when he used it with as much fluency and ease as his European fellow-subject. After the first short period following the conquest, when Spanish jealousy discouraged literature of any kind, there was an absolute prostration, the only efforts made to record passing events being those of the religious chroniclers, whose productions were valuable, but verbose, involved, and far from entertaining, with only an exception here and there. Bishop Zumárraga's fanatical vandalism in destroying the Aztec writings, was in a measure redeemed by the labors of Father Sahagun. This man's work was mutilated by narrow-mindedness, but Father Juan de Torquemada, in his *Monarquía*, saved much of it. The mestizo Father Durán did much work similar to Sahagun's. The 17th century gave us two writers worthy of fame; one was Cárlos de Sigüenza y Góngora, philosopher, mathematician, historian, antiquary, and somewhat of a poet: the other was the nun Juana Inés de la Cruz, of whom more anon. Another famous writer of the period, the dramatist Alarcón was born and received his early education in Mexico, but he rather belonged to Spain, where he spent his literary life. Mexican literature began to revive toward the end of the 17th century. Science had its votaries, medicine, for obvious reasons, obtaining the preference. The flora of New Spain was ably investigated by Lesse and Mocíño, aided by Echeverría; the last two named were Mexicans by birth. Rio wrote the best treatise on mineralogy. Lavoisier's chemistry was first translated into Spanish in Mexico. The Gacetas de Literatura, edited by Alzate, showed a growing taste for scientific subjects. Alzate's range of knowledge was wide, and he published numerous valuable works, rendering at the same time good service with his caustic assaults on the vicious and old-fashioned methods and ideas of his time. Alzate was also a good authority on astronomy, though in this branch he was excelled by his contemporaries Velasquez y León, the foremost geodetic observer of New Spain, and León y Gama, who also had a leaning to antiquarian researches. Sigüenza y Góngora published in 1681 a valuable treatise on comets.

The most notable writers on history of the 16th and 17th centuries, aside from Cortés, Bernal Díaz, and others among the conquerors, were the friars Menlieta, Torquemada, Vetancur and Tello. The Franciscans, Baltasar Medina, and the Dominican Dávila Padilla were verbose and far from clear; the Jesuit Florencia was no better. Prose, if we except that of Sigüenza and Tello, hardly made any advance in two and a half centuries. Toward the end of the 17th century we have more classic and sedate writers in the Jesuit fathers Alegre, Clavigero, and Cavo, and in Mariano Veytia. The country has furnished some historical writers in the present century; the first one was the erudite priest, Mier y Guerra, but he lacked discrimination, and exhibited strong bias. Others entitled to notice were Mora, Zerecero, Zavala, Alaman, Bustamante, Suarez y Navarro, Portilla, Payno, Tornel, Filisola, Iglesias, Cuevas, Arrangoiz, Alvarez, Rivera, Ancona, Martinez, Zamacois (a Basque, and who was both a bigoted religionist, and a rabid royalist), and others. All these writers deserve some credit, but they lack either comprehensive, ness, arrangement, or impartiality; every one having been biased by religious, political, social, or personal motives. There are works on Aztec culture and the conquest, by the distinguished Mexicans Ramirez, Icazbalceta, and Larrainzar, and a number of essays, deserving of much commendation. Orozco y Berra's work, reëxamining the whole subject, excels every other native work. Mexico has produced distinguished bibliographers, and orators, both religious and profane, and in diplomacy she must be awarded a high position, some of her state papers emanating from the department of foreign relations showing remarkable ability and correct language. Poetry was cultivated from the earliest times after the conquest, the events of which occupied the pen of bishop Balbuena in his Grandeza de México; the bishop also wrote Bernardo, and the pastoral Siglo de Oro, both excellent compositions. The passion of Christ, and the miracle of the virgin of Guadalupe, have been the themes of many a poetical effusion. Francisco de Terrazas was honored with the praise of Cervantes. Zapata's elegy on the death of the brothers Avila has many sweet lines. Sor Juana Inés de la Cruz, née Juana Inés Abajé y Ramirez, the national poet of colonial times, possessed a critical and philosophical mind; her contemporaries in Spain gave her the title of the tenth muse, and she deserved all the praise bestowed on her. Mexico has likewise a few writers for the stage—Vela, Arriola, Salazar, Soria. During the first decade of the present century shone the Franciscan Manuel Navarrete, with his tenderness and purity, as well as religious sentiment and reflectiveness. In dramatic poetry the following names must not be omitted: Gorostiza, Calderón, and Rodriguez Galván; this last named produced the first national historic drama. Epics have been produced like the Anáhuac of Rodriguez y Cos. Ester Tapia de Castellanos' Flores Silvestres show her to have been superior as a poet to more pretentious and better known singers. Prieto is at present the national poet, and he is deservedly held in high esteem as a writer, statesman and patriot. Mexican poets generally show their strength in compositions where love forms the theme; there is a tendency to elegy, and a leaning to versos de arte mayor, or longer lines, which is due to affectation. As a rule the impetuous temperament of the Mexican creole prompts him to frequent violations of prosody and euphony, as if he will not allow himself to be controlled by rules.

Several interesting novels, mostly of a historical character, have been given to the press by Mateos, Altamirano, Riva Palacio, Gorostiza, Cuellar, Contreras, Paz, Peza, Payno, Sierra, Carpio, etc. Riva Palacio is also a dramatic writer. The Mexican people are better acquainted with French literature than with that of any other language, aside from the Spanish. Upwards of sixty newspapers are published in Mexico, and some are in foreign languages, French and English. In the capital there are several daily papers in Spanish, and two in French. Many of these papers hardly issue more than 500 copies; the *Monitor Republicano*, supposed to have the largest circulation, is said to publish an edition of about 7,000 copies. There is one semi-weekly paper in English, called *The Two Republics*, and *The Financier* is a weekly, issued half in Spanish and half in English. A few American newspapers may be found in Chihuahua, mostly advertising sheets. The government allows subsidy to some newspapers that but for it would have to stop publication. There is the fullest freedom of the press; its offenses are subject to the cognizance of the ordinary courts.

Central America cannot be said to have any literature of its own, the people depending almost entirely on Spanish works, or translations from the French and other languages.

Persons who write for the public generally do it through the newspapers. Occasionally a work in book form has appeared from the pens of Gerónimo Perez, Lorenzo Montúfar, Tomás Ayón and others, on historical and political subjects, or some elementary book for schools. Guatemala has produced some able writers, among whom deserving especial mention are José del Valle, Domingo Juarros. Alejandro Marure, Pedro Molina and his sons, Francisco Barrundia, the aforementioned Montúfar, José Milla, and others, including the brothers Dieguez as poets. Ignacio Gomez has also given to the press some interesting compositions, his translation into Spanish verse of Gray's celebrated elegy deserving especial notice. Many Central Americans wield powerful pens, as is made evident in newspaper discussions, and in not a few state papers. In most of the republics good newspapers are published, freedom of the press being recognized in normal times. Most of them are used as vehicles of news, and for the discussion of political affairs, with an occasional one devoted to science or literature José Ma Zamora y Coronado, author of the "Biblioteca de Legislación Ultramarina" of Spain, and who held some of the highest positions in the Spanish judiciary, was a native of Costa Rica.

Colombia, Venezuela, and Ecuador, which at one time formed the Colombian confederation, have made considerable progress in a literary point of view.

Colombia has produced a number of good writers in several branches, both in prose and verse. Journalism also boasts of very good pens. The tribune and diplomacy have had some shining lights; and it may be said that the educated classes of the republic take the first rank in South America for scientific and literary culture. Venezuela has not lacked for well educated men and good writers. The most distinguished was Andrés Bello, who may justly be called the most eminent publicist of Spanish America. He wrote fine compositions in prose and verse on almost every topic, and was highly honored. The most noted of his works was probably his treatise on international law. Cecilio Acosta, a writer of classic style, contributed many papers on literary, scientific, and political subjects, well worthy of preservation. Ecuador has some able men who received their education abroad. There is every element for advancement in the country, were it not checked by the absolute control of the clergy. Antonio Alcedo, the illustrious geographer of the eighteenth century, author of the "Diccionario Geográfico-Histórico de las Indias Occidentales," of world-wide repute, was a native of Ecuador. The country has had some good poets, among them being the Jesuit priest, Juan B. Aguirre, and the brothers Márcos, Hernando, and Pedro Alcocér. Olmedo, the author of the famous ode on the victory of Junin, was a Guayaquil man. Numa P. Llora was a native of Guayaquil, but figures among Peruvian poets, etc.

Brazil has had a considerable number of men who have won well merited distinction in the various fields of letters and science.

There are upwards of 200 periodical publications scattered throughout the provincial towns, many of which are conducted with marked ability. A majority of them are newspapers, which occupy many of their columns in discussion of political topics; in these discussions the writers display remarkable foresight and wisdom; other publications are devoted to scientific pursuits and literature. Rio de Janeiro has six dailies, or more, of which the *Diario do Rio* has been in existence since 1817. The most important scientific societies are the Historical, Geographical, and the Ethnographical Institute of Brazil. There are about twenty other scientific associations in the national and provincial capitals. Among the most remarkable writers on political economy and commercial law are Bishop Coutinho and the senator Silva Lisboa, viscount de Cayron. Both these gentlemen are natives of Brazil. Among historians the most distinguished are Rocha Pita and the lexicographer of the Portugese language, Moraes. José Ignacio Abreu Lima, an old soldier who did good service toward Colombian independence, and was the author of several historical papers, is, among many others, worthy of mention. One of the most noted comic poets was Silva, a victim of the inquisition in Portugal. Brazil claims two famous writers in the Portugese language, namely, Durao and Gama, authors, respectively, of the epic poems "Caramuru" and "Uruguay." Among the minor poets honorable mention is due to Gonzaga for his lyric, "Marilia de Dirceo"; Souza Calzas, translator of the psalms; Claudio, Avarenia, Gregorio, and Eusebio de Mattos, Gusmao, and the more recent

Odorico, Mendes, Borges de Barros, Domingo Magalhaes, Marqués de Paranaguá, A. de Macedo, Porto-Alegre, Barbosa, and others, among whom should be mentioned the blind poetess, Angela de Amaral Rangel. Religious topics have been honorably represented by Antonio Cárlos and Montalverne. In natural sciences excelled, Frei Leandro, Arruda, Câmara, and José Bonifacio de Andrada. A mulatto named José Mauricio left some fine compositions of sacred music.

The Plate region has also had a number of men who have become entitled to fame by their writings on various subjects; some of them have been journalists, jurists, and statesmen.

The Argentine Alberdi was one of them. Doctor Velez Sarsfield was the author of the civil and commercial codes of the Argentine republic; and the Uruguayan, Acevedo, was also a writer on jurisprudence. Francisco X. Acha, also a Uruguayan, was a prolific poet, among whose writings were several pieces for the stage, received with favor by the public. Mármol, the novelist, is a readable author. The Bolivian Miguel M. Aguirre, was a noted statesman, who wrote a Bosquejo histórico de Bolivia, which was left unfinished.

Perú really deserves a respectable position in the republic of letters. It has produced, and has at the present time, men worthy of fame for their written contributions to science and literature.

Pedro de Peralta y Barnuevo, who wrote the epic poem "Lima Fundada," was probably the most prolific writer of the colonial period. Toward the end of the eighteenth century scientific subjects began to seriously occupy Peruvian minds. Godin, a celebrated French mathematician, was appointed professor of mathematics in the university of Lima. Botanical expeditions, despatched from the mother country, awakened much public interest. The Peruvian Gabriel Moreno became an eminent botanist; his death occurred in 1809. Hipólito Unanue, also a Peruvian, contributed important scientific articles to the *Mercurio Peruano*, a periodical started in 1791 at Lima. The contributors to this publication, which was completed in eleven volumes, formed the association entitled Amantes del País. The work contains much of history, topography, botany, mining, commerce and statistics. Cosme Bueno, a learned geographer, began the publication of the ephemeris and guide to Perú, which was continued by Unanue from 1793 to 1798. In 1794 was established in Lima a nautical school, with Andrés Baleato as instructor, Pedro Alvarez teaching the use of instruments. Baleato made a map of Perú. Montalvo, in his "Life of Santo Toribio," gives a list of Peruvian authors. St. Toribio, archbishop, who flourished from 1578 to 1606, and Santa Rosa de Lima, the patroness of the city of Los Reyes, the formor name of the Peruvian capital, were both natives of that city. Eduardo Carrasco continued the topographical labor of Bueno and Unanue with signal ability, and the guides of Perú reached 1826. The most emiLent Peruvian geographer, Paz Soldan (Mariano Felipe), wrote "Geografia del Perú" in 1862. Another fine work of his, the "Diccionario Geográfico Estadistico del Perú," issued in 1872, is a most complete gazetteer. In 1868 he published the first volume of his "Historia del Perú;" other volumes have come out later. Sebastian Lorente had published in three volumes the earlier history of the country, and Mariano Rivero had ably treated its antiquities. Manuel Fuentes edited the memoirs of the Spanish viceroys in six volumes. Mendiburu's "Diccionario Histórico—Biográfico del Perú" is a work of great merit by a modern Peruvian, which will forever occupy a prominent place in the annals of literature. Credit is due also to José T. Polo, author of a history on Peruvian dioceses, and to Enrique Torres Saldamando, the historiographer of the Jesuits of Perú. Valdivia, historian of Arequipa, and Mesa, writer of the "Anales de Cuzco," deserve an honorable mention as local annalists. On constitutional and legal subjects we have José Santistévan, Luis Felipe Villarán, Francisco García Calderón, Francisco Javier Mariátegui, one of the fathers of Peruvian independence, Francisco de Paula Vigil, orator, statesman, and author of the great defense of civil governments against papal pretensions to absolute supremacy. Another Peruvian worthy of notice is Luis Eugenio Albertini, journalist and author of two works on South American diplomacy, and diplomatic law in its especial applications to the South American republics. The number of men who have contributed and continue contributing able works on political economy and the science of government, either in book form or in the columns of newspapers, is quite

large. Poetry and romance obtain a high place among the Peruvians. Felipe Pardo and Manuel Segura, natives of Lima, are known wherever the Spanish language is read. After 1848 we have a host of distinguished poets, namely, José Arnaldo Marquez, Nicolás Corpancho, Adolfo García, Clemente Althaus, Pedro Paz Soldan, whose *nom de plume* has been Juan de Arona, Cárlos Augusto Salaverry, a son of the ill-fated general, Luis B. Cisneros, Trinidad Fernandez, Constantino Carrasco, Narciso Aréstegui, author of several novels, the principal ones being "El Padre Orani" and "La Venganza de un Marido," both based on the traditions of Puno, his native city; José Antonio Lavalle, who was also a journalist, author of "Comentarios Constitucionales," etc.; Ricardo Palma, who was also a journalist and a senator. Besides his poetical works, "Armonías, libro de un desterrado, Paris, 1865," and "Pasionarias, Havre, 1870," he gave to the press "Anales de la Inquisición de Lima" and "Tradiciones." Palma was likewise a notable writer of chronicles and romances. Numa Pompilio Llona was, during five years, a professor of literature and other branches in the university of Lima. He was later a journalist, and afterward held high official positions. His most famous compositions are "Cantos Americanos," "Noche de dolor en las montañas," and "Los Caballeros del Apocalipsis." This last named was translated into French by the celebrated literatteur, Lucien Biart, who was an intimate friend of Llona. Most of the above named have won distinction in other fields. José Bernardo Alzedo composed the national anthem of Perú, and wrote many other compositions in prose and verse. His last work was "Filosofía elemental de la música." He was also the author of several musical pieces. The ancient language and literature have not been neglected. Mariano Eduardo de Rivero is one of the scientific celebrities of America. He received his education in England, and distinguished himself in mineralogy and other branches of science, upon which subjects he contributed many papers. After a long sojourn in Europe and elsewhere he returned to Perú, and was placed by the government in charge of the museum of natural history and antiquities. In later years he published in Europe his famous work on Peruvian antiquities, in the publication of which he had the valuable aid of the celebrated scientist, Tschudi of Vienna. Rivero served his country thirty years in many important offices, and received also many marks of appreciation from the governments of Europe and other parts. He was an active member of many scientific societies of France, England, Belgium, United States, Chili, etc. He had several decorations from European governments, which he was authorized to use, but modesty never allowed him to wear them. Rivero was ably followed by José Sebastian Barranca, naturalist and antiquary, whose best known work is "Ollanta ó sea la severidad de un padre y la clemencia de un rey," which is a drama in three acts, translated from the Quechua language, published in Lima, 1868. It is understood that Gavino Pacheco Segarra assisted Barranca in the translation of that Indian work. Among Peruvian naturalists since the independence are the above named Rivero, as geologist and mineralogist, and his friend, Nicolás de Piérola, author of "Memorial de Ciencias Naturales," "El Telégrafo," "El Ateneo," etc. He was also at one time a cabinet minister of Perú, and had also been a deputy to congress, director of mining, etc. Cayetano Heredia was a famous professor of medical science, who created the museum of medicine and the chair of analytical chemistry. In his honor was a Peruvian plant named Genciana Herediana. He died in 1861. Miguel de los Rios followed in Heredia's footsteps. Many Peruvian physicians have since 1856 written for the *Gaceta Médica de Lima*. The most noted publicists of Perú have been Mariátegui, Vigil, Reinaldo and Cesáreo Chacaltana, Ricardo Heredia, José C. Ulloa, Toribio Pacheco, jurist and statesman, and Luciáno Cisneros, also a jurist and statesman. The cities and most of the towns of Perú have newspapers, many of which are conducted by the brightest minds of the country.

Chili is justly entitled to a position among the enlightened nations, having produced men eminent in science, literature and statesmanship, not to speak of military and naval attainments. The press has been steadily improving. Every town has one or two important dailies, and throughout the country are published a large number of papers and magazines, weekly or monthly. There are likewise papers published in foreign languages.

There were published in 1886 in Chili, 128 newspapers; 25 of them at Santiago 13 at Valparaiso; at several other towns there were from 2 to 5, and one at least in nearly every head-town of a department.

It would occupy too much space to give here a full list of the Chilians who have distinguished themselves in the world of letters. I will, however, mention the names of a few of them. Benicio Alamos Gonzalez, journalist. Bishop Manuel Alday y Azpée, famous for his religious dissertations, which won him the appellation of the Ambrose of the Indies. Miguel Luis and Gregorio Victor Amunátegui, journalists, professors of literature, and historians. Domingo Aracena. Santiago Arcos, a political writer. Diego Barros Arana, a versatile writer in prose and verse, one of the brightest minds of Spanish America. Domingo and Justo Arteaga Alemparte, historians and journalists. Francisco S. Asta-Buruaga, diplomatist, statesman, historian. Eduardo de la Barra, journalist and poet. Manuel Bilbao, historian. Francisco Bilbao, journalist; the initiator of rationalism in the ex-Spanish colonies. Emilio Bello, poet, a son of the distinguished Andrés Bello, spoken of in connection with Venezuela. Diego José Benavente, journalist and historian. Manuel Blanco Cuartin, journalist and poet, who wrote many comic and dramatic pieces, and also a memoir of the history of philosophy and medicine. Alberto, Guillermo, and Joaquin Blest Gana, distinguished statesmen and men of letters. Ramón Briceño, librarian of Chili, and author of several philosophical and literary works. José Vicente Bustillos, professor of chemistry, and author of a work on chemistry, a treatise on pharmacy, etc. Manuel Carrasco Albano, political essayist, and writer of school books. Vicente de Carvallo Goyeneche, an old soldier of the war of independence, and author of a historical and geographical description of Chili. Manuel Concha, journalist, chronicler, and writer on manners and customs. Pedro de Córdoba y Figueroa, who wrote in the 18th century a history of Chili for the period 1542-1717. Diego José Fuensalida, of the Society of Jesus, a theological writer. Camilo Henriquez, political writer. Justo Donozo and Crescente Errázuriz, authors of several important ecclesiastical works. J. C. Fabre y Fernandez, jurist. Antonio J. Irisarri, journalist, statesman, and writer on political and scientific topics; he published also biographies, novels, and a number of satirical compositions in verse. He was a very learned man. Hermógenes Irisarri wrote many books in prose and verse; he was also a journalist and diplomat. Eusebio Lillo, journalist and poet. F. P. Lopez, poet and theologian, who has often been called the Chilian Quevedo. Ventura Marin, philosopher and poet. Mercedes Marin de Solar, a poetess of much merit. She and Sanfuentes were the first to merit the name of poet after the independence of Chili. Guillermo Matta, journalist and poet. Lorenzo Mujica, poet. Adolfo Murillo, medical writer. Miguel de Olivares, a Jesuit writer of the 18th century; he wrote the history of the conquest of Chili, and a history of his order in Chili. Vicente A. Padin, a scientific writer. Pedro de Oña, a poet of the 16th century; the work which gave him fame was his "Arauco Domado;" "Ignacio de Cantabria," eulogy of Ignatius de Loyola, was another of his best works. Zorobabel Rodriguez, journalist and writer upon various subjects; he published a dictionary of Chilianisms. Mercedes Ignacia Rojas, poetess. Nicanor Rojas, medical writer. Salvador Sanfuentes, poet, jurist, and statesman. He wrote many works; among his chief poetical works were: "El Campanario" and "Inami." He is deservedly called an illustrious man. Domingo Santa María, jurist, orator, statesman, and publicist; he is the author of a number of political and historical works. José Antonio Soffia and Enrique del Solar, poets. Ramón Sotomayor Valdés, a publicist, who gave to the press several important historical and political writings. José Bernardo Suarez, publisher of text books for schools, and other works; he was a very successful educator. José A. Torres, journalist and poet. José Joaquin Vallejos, a noted writer on Chilian customs. Angel Vazquez, a celebrated writer on chemistry and other scientific subjects. Benjamin Vicuña Mackenna, one of the most popular writers of Chili, as well as highly esteemed public servant. He has published works on history, biography, political economy, and other subjects. His erudition and elegance of diction give him a title to a high place among modern writers. Cárlos Walker Martinez, jurist and poet.

The republics of the island of St. Domingo do not lack for men of letters who have worthily figured in their limited world. I remember now a noted poet of the Dominican portion named Timoteo Alfaro, whose compositions are really creditable; several of them were published in the *Revista Dominicana* in 1855.

The island of Cuba has been fortunate in possessing men who have given her lustre by their writings upon almost every subject tending to the advancement of civilization. The number of those

who deserve at least a passing notice is quite extensive. The following have won for themselves well-merited fame.

Francisco Arango contributed many papers on agriculture, trade, public roads, and other important subjects. Arango was one of Cuba's most useful citizens. Mercedes Arauz, a sweet poetess. Antonio Bachiller y Morales, journalist, and writer on many matters of the highest importance in a literary and economical sensé. Gaspar Betancourt Cisneros, one of the most enlightened men the island ever had; his epistolary correspondence is probably unsurpassed in any language. Francisco J. Blanchié, author of "Margaritas" and other poetical compositions, lived and died in poverty; but he had a funeral befitting a prince. José de la Luz Caballero; no man's memory is more cherished by his countrymen. He was a patriot, and a man of letters, who would have done honor to any country. Úrsula Céspedes de Escanaverino, a poetess of the 3d decade of this century; her lyric compositions are much appreciated. Francisco Frías, count of Pozos Dulces, a terse writer on agriculture, political economy, and many other subjects of high importance to the island. His advanced liberal ideas, though usually expressed with moderation, made him always an object of suspicion to the authorities, and he had, accordingly, to spend most of his life away from his country. Gertrudis Gomez de Avellaneda, one of the most eminent modern poetical writers in the Spanish language; among her compositions figure some very creditable dramatic pieces and several novels. Carolina Coronado (Mrs Perry), another distinguished Spanish poetess, says of her, "she was a poetess of great energy, sublime genius, and really grand in her conceptions." Some of the most eminent Spanish literatteurs place her among the greatest poets of the age. José Güell y Renté, who married a sister-in-law of ex-Queen Isabel II of Spain, is a poet of much merit; his compositions have been translated into foreign languages. José María Heredia was a fluent writer on many subjects: as a poet he ranks among the highest; his ode to Niagara is a magnificent production which cannot be excelled. Banished from his country, he went to live in Mexico, where he filled some of the highest positions in the government. Felipe Lopez Briñas wrote some creditable poetry. Juan Francisco Manzano, a negro slave, was the author of several beautiful poetical effusions, which awakened interest in his fate, a subscription was raised, and he was made a freedman. José Jacinto Milanés was probably the most popular of Cuban poets. His style is noted for simplicity, sweetness, and delicate feeling. José Fornaris was the author of several beautiful poetical works; the chief ones were "Cantos del Siboney," "Cantos Populares," "El Libro de los Amores," and "Flores y Lágrimas." Rafael M. Mendive was another sweet poet. He published in one volume his compositions under the general title of "Pasionarias." Mendive was a constant contributor to literary journals. He is held to be one of the most esteemed writers of the Island. José Gonzalo Roldan, also a poet and colaborer with Mendive. Luisa Molina was truly a sweet poetess. Francisco Orgaz, poet and journalist. Luisa Perez de Montes de Oca, poetess. Ramón Palma, poet and journalist. Jacobo de la Pezuela, author of a geographical, statistical, and historical dictionary of Cuba, notable for erudition and excellent method. Enrique Piñeiro, journalist and writer on general subjects. José Antonio Saco was one of the most learned and patriotic of men. He was a vigorous writer; his great work was the history of slavery from the earliest to the present times. Saco was among the first to uphold the abolition of slavery in Cuba, and published a work on the subject in 1845. Chosen deputy for his country to the Spanish constituent congress in 1836 he did not take his seat, because that body refused admission to the Cuban deputies. He passed many of his last years in France, in obscurity, but highly respected. Gabriel de la Concepción Valdés, a colored man and humble comb-maker, but one of Cuba's finest poets. He wrote under the pseudonym of Plácido. His "Siempreviva" is a beautiful production. Plácido for being mixed in a plot to free the island from Spanish domination was executed. Félix Varela was the first to teach modern philosophy to his countrymen, and wrote several scientific works. He could not live in Cuba, and made his home in New York as a priest of the diocese; his death took place in St. Augustine, Florida. Father Varela was one of the greatest and purest men the island ever produced. Ramon Velez Herrera, poet; he published one volume of Cuban romances, a tragedy entitled "Napoleon in Berlin," and many other writings. Ramon Zambrana, a philosophical writer and poet; in 1858 he published his literary, philosophical, and scientific works. Manuel Zequeira y Arango, a colonel, was one of the first men to gain distinction as a poet in the island; he also edited several literary and political journals.

Porto Rico has likewise had among her sons a number who have devoted themselves to literature. Among them I remember Manuel A. Alonso, author of "El Jíbaro;" this work is in verse, and describes the peculiar dialect of the lower classes, and also the manners and customs of the people of Porto Rico.

It is not my intention to make extensive remarks on the status of literature in the United States. The subject would demand much time and space, as well as a very careful study. The country, as is well known, has eminent men in all the branches of literature and science, and many of them have written works which are considered of the highest merit. Such works as a rule are as well known abroad as they are in the authors' own country. The press has had a most remarkable development, under a system of unrestricted freedom, and a large number of the papers are directed by the first minds of the country.

In 1880 there were	980	dailies	with a circulation of	3,537,424 copies
	8,718	weeklies	" "	19,459,107 "
	1,167	monthlies	" "	8,081,393 "
	538	of all others	" "	81,177,924 "
	Aggregate, 11,403	periodicals		

In that year there were 10,625 periodicals in English, 778 in foreign languages, 8,816 devoted to news, politics, and family reading, 574 to religion, 162 to agriculture, 146 to general literature, 1,705 to other subjects. The number of periodicals printed, according to the census of 1880, was 1,344,101,235. The amount paid in wages by the publishers of periodicals in 1880 was $23,571,330. The value of the products of the periodical press that same year was $87,441,182. In 1884 there were 12,671 periodicals published; in 1887, 14,661. I have given elsewhere a list of the libraries in the United States having upwards of 100,000 volumes.

The Spanish American countries and Brazil possess libraries which are greatly valued.

In Mexico there are public libraries in only sixteen states of the republic; and but a small proportion of the contents consists of modern literature. A large number of the books and papers in the collections contain important matter for the historian and bibliographer, having come out of the suppressed convents, etc. The aggregate of books existing in all the public libraries probably exceeds 250,000 volumes. There are between seventy and eighty scientific societies in the republic—the chief of which is the Sociedad de Geografía y Estadística—each one having a collection. The above named society possesses an excellent library. After the liberal régime became triumphant the government undertook to form a national library with the collections existing in the cathedral, university, and convents. This project was carried out in 1867. Two copies printed in Mexico must be presented to the library. The only other library existing in the city of Mexico is that belonging to the Lancasterian society, known as the Cinco de Mayo.

The several Central American republics have small libraries at their capitals. Brazil's chief library is the Bibliotheca Pública Nacional at Rio Janeiro, founded in 1807, and now containing 120,000 volumes, and about 1,000 MSS. National literature and works connected with South America are especial features of the collection. The royal library of Ajuda, which had 4,000 MSS., was brought to Brazil by the king of Portugal, but was returned there when Brazil became independent. Among other libraries existing in Rio are those of the faculty of medicine, 18,000 volumes; marine, 19,500; national museum, 9,000; Portuguese literary club, 53,000; Bibliotheca Flumigense, 43,000; Benedictine monastery, 9,000; and the Bibliotheca municipal, 15,500. A report on Brazil of 1876 gives the aggregate number of volumes in all the libraries of the country to be 460,272. In 1875 the libraries were visited by upwards of 85,000 persons.

The Argentine republic has more than 200 libraries, most of them due to benefactions; but the government in every case contributes as great a sum as any endowment. The chief library is the Bibliotheca Nacional at Buenos

Aires with about 40,000 volumes, founded under the auspices of President Sarmiento. It is also rich in manuscripts, some of which are very interesting, on the early history of the Spanish colonies. There are about two dozen dailies published in Buenos Aires city, two of them being in English, one in French, one in German, and one in Italian. La Nacion, a very large sheet, has a circulation of about 30,000 copies. The journals are well conducted, and seldom abuse the liberty which the press enjoys. Among the periodicals some are devoted to scientific subjects.

The national library of Uruguay at Monte Video had in 1886, 19,805 volumes in French, Spanish, Italian, Portuguese, English, and Latin, and 1,000 MSS., besides a large quantity of pamphlets, loose sheets, newspapers, etc. The number of newspapers published in the republic in 1886 was 103, of which 30 were issued daily, 7 tri-weekly, 20 semi-weekly, 31 weekly, 11 fortnightly, and 4 monthly. A few papers were issued in foreign languages. There is a good deal of journalistic enterprise in Montevideo, as well as in Buenos Aires, Santiago, Valparaiso, Rio de Janeiro, and other of the larger and more enterprising cities; but there are no newspaper reporters as in the United States.

I have already spoken elsewhere of the national library at Lima. A large number of newspapers are published in that city, Callao, and other towns.

The national library at Santiago de Chili is a fine collection of books, especially rich in works relating to America. It contains upwards of 40,000 volumes, and many rare manuscripts. The national institute also possesses a good library. The newspaper press of Chile is conducted with much ability. Most of the papers published are devoted to news and politics, but there are others whose columns are wholly filled with scientific or artistic matter.

In the city of Habana there is a collection in the university, mostly composed of books on law, medicine, theology, and other sciences. There are other smaller collections in the capital and other towns. In San Juan, Porto Rico, there is a fine library. Several able periodicals, political and scientific, are published in Habana.

It is probable that the chief places in the West Indies also possess collections of books. In Kingston, Jamaica, there is a library containing works of scientific, historical, and general literature, and also a large collection comprising popular works, and those of the standard novelists, which is periodically increased. The leading reviews and periodicals of the day are regularly obtained from Europe and America.

In the last preceding division the reader has been enabled to see what is the legal position of woman throughout Spanish America and the United States. In Spanish America, except perhaps in Buenos Aires, there is no period of a woman's life when she is not under restraint, under the control of some one, father, mother, guardian, or husband, not to lay too much stress on the old rules of society, which were inherited from the mother country. She is at no time of her life, at least in the higher ranks of society, permitted to enjoy the free and animated intercourse with the other sex existing in the United States. She cannot go out alone without exposing herself to disagreeable remarks, and maybe to insult. Before marriage a young woman, even after becoming engaged to the man of her choice, with the consent of her parents, guardian, or family, or to the one chosen for her by her natural or legal protectors, is constantly under surveillance; this watchfulness is, however, often illusory. After marriage the surveillance ceases, but social rules are so strict that there is but little less restraint. The wife is the ruler of the household, and her children until they are grown up are very much under her sole control. The home, as understood among the Anglo-Saxons, does not exist, and the family reunions which have so important

an influence on Anglo-Saxon society, rarely take place. Dinner parties are not common, and home entertainments are restricted mainly to the tertulias, with their singing and dancing, forfeit games, and gambling. The piazza or flat-roof of the town house is often the place chosen for these reunions. Occasionally these social gatherings take place in the country, where there is much less of the stiffness and etiquette observed in town. It is but justice to say that the women of the upper and middle classes of society are noted for their virtue, for their faithfulness to their marriage vows, and for love of their children. Generally speaking, the Spanish-American woman is a good daughter, sister, wife, and mother. There are, unfortunately, cases of a different nature, but they should be taken as exceptions to the general rule. It must be confessed, however, that there is too much disposition to be lenient to erring brothers and sisters. Among a certain class much looseness prevails. Men and women live together without being wedded, and these pseudo wives are allowed to associate with respectable wives on equal terms. Husbands not unfrequently maintain several households without much attempt at concealment, and without thereby forfeiting their standing in decent society. Love, and not mercenary motives, seems to be in most cases the impelling causes to these liaisons. In the lower classes lewdness prevails to a great extent; illegitimate connections are so common that the number of illegitimate offspring is very large almost everywhere. As a general rule among Spanish Americans woman is looked upon more as a toy and ornament than as a companion; and yet she is really entitled to the term better half. Fossey declared women in Spanish America to be "beaucoup supérieurs á leur maris," and Spanish writers have in many instances echoed this sentiment. Whether they be superior or not, the fact stands that on occasions demanding decision and energy they rarely fail to display these qualities in a remarkable degree. Among the Indian population, and the lower classes in general, the women lead a more laborious and hard life than the men. They are mere slaves, though appearing cheerful. An author said of the Central American woman's life, "she nursed, made tortillas, and died." The remark applies equally to the women of the lower order in all Spanish America.

Women abound in Mexico, very beautiful ones in many places, and yet wives are high-priced, which deters poor men from contracting the bond of marriage. The higher classes indulge such extravagant habits that these will ever be a serious obstacle to marriage. The intrusion of mothers and relations must be another. As for the laboring man wishing to marry, complying with the rules of the church he must pay from $5 to $15, the equivalent of several months' hard savings. Civil marriage is now the only legal one, which facilitates its being entered into a little; but the lower classes, especially the women, are so devoted to the church that unless a ceremony has been performed by a priest there is no marriage, in their estimation. The result of this is that concubinage is very common. The same remarks stand good for Central America. In Costa Rica the sense of morality, in sex relations, is not what a high standard of morals demands. Divorces and separations are too common, and concubinage quite prevalent. The last census of population, in 1887, showed that there was one birth to every 23 inhabitants, and 1 illegitimate to 2.97 legitimate, a worse state than in 1886, when the proportion was 1 in 3.55. The superintendent of the census for 1864 recorded "1,200 separados

de hecho, quienes sin equivocarme puedo decir que viven en concubinato, sin contar la frecuencia de éste entre solteros y solteras." This state of things in a small population. In Nicaragua and Salvador the same disposition prevails to condone offenses against morality and honor; thus it is that serious offenses, which should cast indelible blots upon their authors and throw them out of the company of honorable people, are after a while forgotten, and the offenders are reinstated in society. In Salvador the Indian and mestizo manifest a strong desire to have children by white men, which promotes looseness. They see no harm in living with foreigners, and have children by them out of wedlock. In Honduras the practice of men and women living together unwedded prevails, chiefly among the lower order. These mistresses, if their men have means, will have servants to wait on them; if not, they do all the work, and perhaps procure the means to support them and cater to their vices. Belly, writing of the people of Guatemala before the clerico-oligarchic régime was upset, said, "qui sort a peine de la plus abominable éducation religieuse et morale que jamais un peuple ait subie." But the last sixteen years have been of progress and improvement, intellectually and morally as well as materially, it is hoped, not only for Guatemala but also for her sisters. In Colombia the same state of things prevails. The upper class of society is as moral as the best anywhere; in the lower class the moral scale is low, marriage being the exception rather than the rule; for which the upper class is partly responsible for their mistaken charity in looking with indifference upon a practice that should be frowned upon. It has been recently asserted in regard to Ecuador that seventy-five per cent. of the children born are illegitimate. This may be somewhat of an exaggeration, but it is true that immorality is very prevalent. Venezuela presents the same immorality in the lower classes.

In the Argentine republic, formerly, if a young man loved a girl he could not tell her, except through her parents or guardian; now-a-days he pours the tale of his love into her own ear without the intervention of any third person. The Argentines are not afraid of leaving a woman with a man who is not her husband, father, or brother. Girls go out riding or walking with their male friends, and receive them at home as they do in the United States. However, some of the Spanish aristocratic families still cling to the old strict surveillance. Throughout the Plate region the women of the upper class of society are, generally speaking, entitled to high respect for their virtue. In the lower classes about the same loose morality observed in other Spanish American countries is also prevalent. It must be borne in mind that no middle class proper exists in those countries to any extent; but liberal institutions and the diffusion of education among the masses must tend to the formation of this desirable class.

In Brazil woman is fast attaining a higher position than she enjoyed before. She is no longer kept as a mere plaything for man. More attention is now paid to her education; in the old times a Brazilian young lady, like her Spanish and Portugese sisters, was taught hardly more than to read her prayer-book, a little embroidery, and music; now seminaries are provided for her, and the nuns have been compelled to enlarge the course of study. The Brazilian woman is intelligent and quite witty. Unfortunately she consumes much time in reading translations of French novels, which might be employed in more serious study.

Social restrictions are not so stringent as they were in former times; the two sexes mingle with greater freedom; society is undergoing quite a change. It is now considered proper for ladies and gentlemen to converse together. But ladies never go out alone to make calls, and do not receive gentlemen when their husbands or natural protectors are away. Among the respectable class of society there is a high standard of morality; but in the lower scale of negroes and mixed breeds the reverse is the case.

In Hayti and the Dominican republic there is morality in a comparatively small circle of the upper and educated class; but looseness of morals has ever prevailed; the very fact of there being so many mulattoes makes it evident that gross immorality existed when the white population was more considerable. The large

number of illegitimate births at the present time shows that no great improvement in the morals of the people has been attained.

In Cuba and Porto Rico I do not hesitate to assert that a high standard of morality exists in the women of the upper and middle classes. At the same time it cannot be gainsaid that the practice of lewdness and of men and women leading marital lives without being lawfully married is too prevalent, and in many instances actually scandalous. The worst of it is that the practice is looked upon with leniency when it should be severely discountenanced. In the lower class, mostly composed of negroes and mulattoes, marriage is the exception rather than the rule.

In the other foreign possessions of the West Indies and Guiana it may be said that the females of the higher classes of society are, generally speaking, chaste, and among the lower class much promiscuous intercourse prevails between the sexes; and the illegitimate children born are quite numerous.

In the United States woman stands upon a higher plane, is awarded a more independent standing than in any other part of the world. Trained from childhood to take care of herself and to look forward to a life of usefulness, she is able, if need be, to fight the battles of life. As a girl, she carries sunshine and brightness wherever she goes; as a wife and mother, by her purity, affection for her family, and intelligent management, she renders the home she presides over the abode of happiness. Such is the true, virtuous American woman, the type of her sex; none to excel her is to be found anywhere, and it is a fact which cannot be contradicted that the large majority of American women are virtuous and devoted to their families. Unfortunately all are not so; there are too many little disposed to value virtue and duty as they should do, and the consequence is that they make themselves and others unhappy; others will not bear patiently the vicissitudes of married life. Hence we see too often ties which had been assumed for life broken asunder. Divorces have become too common, and society in self-defense will have to adopt precautionary measures. I need not say that prostitution is found in every town. Men and women given to such a life abound in all populous communities.

Americans in general are fond of amusements. The theater, where the population is large enough to maintain one, is much frequented. Dancing, singing, private theatricals, etc., are patronized everywhere. In all Spanish America the cockpit and bull-ring are places honored by men of all classes. In Cuba no woman, unless she be of a very low type, ever shows her face at a bull-fight. In some parts, as in Guatemala, the beast is worried, but never killed before the public. In Mexico, after the adoption of the constitution of 1857, a law was enacted abolishing bull-fights in the federal district; but a reaction seems to have taken place, for congress has lately repealed the prohibitory law, and bull-fights have since been in full blast, there being no less than five plazas de toros in and near the national capital. North Americans of a certain class do not dislike cock-fighting, and indulge the pastime whenever they have the opportunity; and there are too many of

them who, disregarding the dictates of civilization and the provisions of law, disdain not to encourage with their presence and betting the disgraceful and brutal fights between men constantly taking place. The patrons of such sport are not in all cases men of the lower class of society. Gambling at cards and other ways is a common vice among Spanish Americans, and but little less so among their brethren of the north. Religious feasts often serve as pretexts among the former to indulge their passion for cock-fighting and other forms of gambling.

VII. MISCELLANEOUS.

In continuation will be found the latest data on the movements of steamships plying between ports on the isthmus of Panama, Europe, the West Indies, and Central and South America, as furnished by the Railroad Handbook of the Isthmus.

General Steamer Combinations.

ARRIVALS—COLON.

ROYAL MAIL STEAM PACKET CO.—From Southampton during 1888—Feb. *a*2, 16; March *a*1, 15, *a*29; April 12, *a*26; May 10, *a*24; June 7, *a*21; July 5, *a*19; Aug. 2, *a*16, 30; Sept. *a*13, 27; Oct. *a*11, 25; Nov. *a*8, 22; Dec. *a*6, 20.

Note—Steamers arriving on dates marked *a* connect at Jamaica with a steamer *from* Vera Cruz, Havana and Port-au-Prince. These also go hence to Savanilla. The alternate steamers proceed hence to Port Limon.

PACIFIC MAIL STEAMSHIP COMPANY.—From New York—On the 9th, 19th and 28th of each month regularly.

WEST INDIA & PACIFIC AND HARRISON LINE COS.—From Liverpool via Barbados, Trinidad, La Guayra, Porto Cabello, Curaçoa, Savanilla and Carthagena—Every Saturday approximately. From Liverpool direct—Every alternate Saturday approximately.

COMPAGNIE GÉNÉRALE TRANSATLÁNTIQUE.—From St. Nazaire—About 1st or 2d of each month. From Havre—About the 20th or 21st of each month.—From Marseilles—About the 10th or 11th of each month.

HAMBURG AMERICAN PACKET CO.—From Hamburg, Havre, etc.—About 4th and 21st of each month.

COMPAÑIA TRANSATLANTICA DE BARCELONA.—From Liverpool via way ports—About the 28th of each month. From Havre via way ports—About the 30th of each month.

ATLAS COMPANY.—From New York via Jamaica—Every alternate Monday. From New York via Haytian and Colombian Ports—Every alternate Monday.

NEW ORLEANS AND COLOMBIAN CO.—From New Orleans direct—No regular dates as yet.

ARRIVALS—PANAMA.

PACIFIC STEAM NAVIGATION CO.—From South American Ports—Every week.

PACIFIC MAIL STEAMSHIP CO.—From San Francisco via Mexican and Central American Ports—On the 4th, and 20th of the month respectively. From Champerio—On the 31st and 11th. From Acapulco—On the 16th.

DEPARTURES—COLON.

ROYAL MAIL STEAM PACKET CO.—For Plymouth during 1888—Jan. 14, 28*a*; Feb. 11, 25*a*; March 10, 24*a*; April 7, 21*a*; May 5, 19*a*; June 2, 16*a*, 30; July 14*a*, 28; Aug. 11*a*, 25; Sept. 8*a*, 22; Oct. 6*a*, 20; Nov. 3*a*, 17; Dec. 1*a*, 15, 29*a*.

Note—Steamers marked *a* connect at Jamaica with the company's steamer for Port-au-Prince, Havana and Vera Cruz. The steamers all go on from Plymouth to Cherbourg and Southampton.

PACIFIC STEAMSHIP COMPANY.—For New York—On the 5th, 15th and 25th of each month regularly.

WEST INDIA AND PACIFIC AND HARRISON COS.—For New Orleans and Liverpool—Every Saturday approximately; and for the same ports via Progreso, Vera Cruz, and once monthly also Belize, every alternate Saturday, approximately.

COMPAGNIE GÉNÉRALE TRANSATLANTIQUE.—For St. Nazaire—The 3d of each month. For Havre—The 21st of each month. For Marseilles—The 11th of each month.

HAMBURG AMERICAN CO.—For Hamburg, Havre, etc.—The 7th of each month approximately. For Havre, Hamburg, etc.—The 24th of each month approximately.

COMPAÑIA DE BARCELONA.—For Havre—The 2d of each month approximately. For Liverpool—The 8d of each month approximately.
THE ATLAS Co.—For New York via Port Limon—Every alternate Tuesday. For New York via Port Limon—Every alternate Tuesday also.
*** These are two distict routes. See arrivals.
NEW ORLEANS AND COLOMBIA.—For New Orleans via Colombian Ports—No actual dates fixed as yet.

DEPARTURES—PANAMA.

PACIFIC STEAM NAVIGATION Co.—For South American Ports—Alternate Saturdays. During quarantine interruptions, steamers sail twice a month, only when possible, communication not being kept open with the infected ports.
PACIFIC MAIL STEAMSHIP Co.—For San Francisco via Central American and Mexican Ports—On the 11th and 30th of the month. For Champerico—On the 10th and 20th. For Acapulco—On the 30th.

AGENTS.

R. M. S. P. C.—R. Suggett, Esq., Dock, Colon, and Henry Ehrman, Esq., Panama.
P. M. S. S. C.—Capt. J. M. Dow, Dock, Colon, and Offices, Panama.
W. I. & P. and Harrison Line—Wm. Warriner, Esq., opposite P. R. R. Freight House, Colon.
C. Gele. Trans.—Mon. A Fournier, the Beach, Colon, and Offices, Panama.
H. A. P. C.—Messrs. Firth and Campbell, Bolivar Street, Colon, and Panama.
C. T. de B.—J. A. Cespédes, Esq., Fifth Street, Colon.
Atlas Co.— "
New Orleans and Colombia—H. E. Cooke, Esq., Boston Ice Co., Colon.
P. S. N. C.—R. G. de Paredes, Esq., Panama.

Sketches of the Lines of Steamers.

TO COLÓN.

Of the above companies, which are regular lines to Colón, the Royal Mail, the Atlas, the W. I. & P., and the Harrison are English; the Pacific Mail and the New Orleans and Colombia are American, whilst the C. G. T. is French, the H. A. P. German, and the C. T. B. Spanish. Besides these, occasionally other steamers call here on charter, principally bringing coal, machinery, etc., etc., for the canal and railroad companies. Most of the trade here is done by steamships. Below will be found items of general information respecting the above steamer companies.

THE ROYAL MAIL STEAM PACKET COMPANY of London, England, was established in 1839 by its projector, Mr. James Macqueen, and on the 8d of January, 1842, it began its pre-eminently useful career, one of the primary results of which has been the rapid development and enormous expansion of commerce between England and the West Indies, and Central and South America. In 1846 the company further increased its operations by entering into a through agreement with the Pacific Steam Navigation company trading on the west coast. Then was it that, as has already been mentioned in these pages, this company organized a regular, and for that time, reliable means of transit over the isthmus for passengers, mail, treasure, and merchandise, by canoes and mules. So that this is the oldest line of steamers that touch at this port, and it is to be noted that the company has occupied, and steadily maintains a foremost place in the commercial history of the isthmus.

The steamers under the present arrangement are contracted to arrive every alternate Thursday, but usually come in on the Wednesday morning. On Saturday they sail for coast ports, returning on Wednesday and sailing on the Saturday following for Plymouth, Cherbourg and Southhampton, calling at Jamaica and Jacmel (Hayti), and connecting with the inter-colonial boats at Barbados. Once every four weeks one of the company's steamers connects with the fortnightly boat at Kingston, proceeding to Port-au-Prince, Habana, and Vera Cruz. Once a month, also, an additional steamer leaves Colón for Havre, Bremen, and Hamburg, via coast ports—Carthagena, Savanilla, Curaçoa, Puerto Cabello, La Guayra, and Carúpano.

The steamers of this company are amongst the finest and most elegant ocean going vessels afloat, being fitted with all the latest modern improvements and conveniences.

THE PACIFIC MAIL COMPANY was organized in New York, U. S. A., in the

year 1847, primarily with a view of establishing a line of mail steamships between Panama and Oregon. The company obtained a charter from the New York state legislature in April, 1848, and on the 5th of October the steamers proceeded to begin their work. This is the third oldest company trading to the isthmus, and the second to Colón—the P. S. N. Co. having entered on its career two years previously—and in friendly conjunction with the Royal Mail company has contributed largely to the development of the commercial relations between the United States and Central and South America, and the west coasts generally.

The steamers of this company ply between New York and Colón direct, arriving here three times a month, on the 9th, 19th and 28th, and sailing on the 5th, 16th, and 24th. These steamers are also elegantly fitted with all facilities for passenger traffic, and having large cargo capacity they pretty much monopolize the trade between Southern America and the United States. They are timed to connect with those of the Pacific branch of the line plying to Panama—which see for further information in section "To Panama."

THE WEST INDIA AND PACIFIC STEAMSHIP CO. was formed in 1863 for the purpose of establishing regular and direct communication between Liverpool and the West Indies, Venezuela, Colombia, and Mexico, and in connection with the "Harrison Line" gives a weekly service from Liverpool via Barbados, Trinidad, La Guayra, Puerto Cabello, Curaçoa, Savanilla, and Carthagena to Colón, supplemented by direct steamers every fortnight alternately to Colón direct and to Colón via Pauillac (Bordeaux).

The steamers calling at coast ports proceed from Colón to New Orleans and Liverpool, providing once a week the only regular and uninterrupted communication from the isthmus to New Orleans. By this—the shortest route to the United States—through tickets to New York are now issued by the company's agent in Colón, giving a choice of railroad routes as desired. The "Piedmont Air Line" is the quickest and best.

The direct steamers proceed from Colón to the various Mexican ports—Progreso, Vera Cruz (for the city of Mexico) and Tampico—once monthly calling at Belize—British Honduras—thence to Liverpool via New Orleans, thus giving a fortnightly service from the isthmus to Mexico without any transhipment or delay.

The company possesses a fleet of steamers shortly to be increased by two steamers of 3,600 tons, which are now being built on the Clyde, and has through arrangements with the Pacific Mail Steamship Co. and Pacific Steam Navigation Co. for the conveyance of passengers and freight to all ports on the Pacific coast north and south of Panama, and carries passengers and freight from the west coast and isthmus to Liverpool, without any transhipment.

THE GENERAL TRANSATLANTIC CO., being a French line having its head office at the Nouvel hotel, 6, rue Auber, Paris, furnishes a bi-monthly service between Europe, the West Indies, Colón, and other Atlantic-American ports. The steamers of the line from St. Nazaire to Colón sail from the former port on the 10th of each month, calling at Guadeloupe, Martinique, La Guayra, Porto Cabello, and Savanilla before coming here. The dates of their arrival are approximate only, and depend on the cargoes to be discharged and embarked. They sail on the return voyage on the 3d of the following month. The steamers of the other line, that from Havre via Santander and Bordeaux, sail from the former port on the 22d of each month, and from Santander on the 27th, calling at Guadeloupe, Martinique, Trinidad, Carúpano, La Guayra, Porto Cabello, and Savanilla. They sail on the 21st, touching at Savanilla, Puerto Cabello, La Guayra, Carúpano, Trinidad, Guadeloupe, Santander, Bordeaux, and Havre. There is also an itinerary line from Marseilles to Colón, the steamers of which sail on the 9th of the month, calling at Barcelona, Málaga, Teneriffe, Martinique, Guadeloupe, Carúpano, Trinidad, La Guayra, Puerto Cabello, and Savanilla, and sailing homeward from Colón on the 11th by the same route, finishing the round trip on the 11th of the following month.

Following the example of the Royal and Pacific Mail steamers, those of the Transatlantic company are beautifully fitted, and bear favorable comparison with them. Perhaps no more enjoyable winter cruise can be made out of Europe than that followed by the steamers of the Marseilles-Colón route, and returning by the Havre route on the 21st, which allows the tourist ample time for visiting Panama, and having a deliberate and leisurely view of the Panama canal works.

THE HAMBURG-AMERICAN CO. practically has no fixed dates of arrival and departure. The West India line comprises two distinct routes. Line IV.

steamers sail from Hamburg on the 5th of the month, calling at Havre, Cape Hayti, Port-au-Prince, and Port Limon, reaching Colón on the 4th of the following month, approximately. They sail homeward on the 7th, calling at Jacmel, Aux Cayes, Port-au-Prince, Gonaives, and St. Thomas, reaching Havre on the 5th and Hamburg on the 8th. Line V. steamers sail outward on the 19th, touching at Grimsby, Havre, Cape Hayti, Gonaives, Port-au-Prince, and Jerémie, reaching Colón about the 21st of the month following. They sail homeward on the 24th, calling at the same Haytian ports as on the outward voyage, and also at St. Thomas, reaching Hamburg on or about the 26th of the month following.

THE COMPAÑIA TRANSATLÁNTICA DE BARCELONA is the Spanish line of steamers connecting to Colón. There are three steamers of this line placed on the Colón route. They leave Liverpool, England, on the 20th of each month, reaching Colón on the 28th or 29th of the following month, having called at Havre, Santander, Coruña, Vigo, Porto Rico, Havana, Santiago de Cuba, and Carthagena. They leave Colón on the following day for Port Limon. Another steamer sails from Havre on the 22d of each month by the same route, reaching Colón on or about the 30th of the following month. They sail from Colón homeward on the 2d and 3d respectively, the ports of call being Carthagena, Savanilla, Santa Martha, Porto Cabello, La Guayra, Ponce, Mayagüez, Vigo, Coruña, Santander, and Havre, the steamer sailing on the 3d going on to Liverpool.

THE NEW ORLEANS & COLOMBIA Co. has only recently been established, and as yet possesses only one steamer. As indicated by the name, the steamers of this company are intended to open up direct regular communication between New Orleans and the southern states and Colón and other Atlantic ports of Colombia. At present no other company's steamers run hither direct from New Orleans, and this new enterprise promises to open up quite an important additional branch of traffic between the United States and Colombia, and possibly other South American countries.

THE ATLAS COMPANY is a line organized to develop trade between New York and Haytian, Jamaican, and Colombian ports. There are two routes, one coming to Colón via Hayti and Colombian ports, and the other via Jamaica. Both are timed to arrive every Monday morning, the one by way of Aux Cayes, Jacmel, Savanilla, and Carthagena, and the other through Jamaica, both sailing on the Tuesdays homeward via Port Limon. The itinerary is subject to frequent modification. Although not strictly "passenger" boats, the accomodation is very good and well recommended by passengers.

TO PANAMA.

There are only two regular lines of mail steamers calling at Panama; these are: The Pacific Steam Navigation company, and the Pacific Mail Steamship company. The former is an English line and the latter American, being the Pacific branch of the line of same name plying between New York and Colon.

THE PACIFIC STEAM NAVIGATION COMPANY is one of the oldest lines calling at West Coast American ports, having entered into contract with the British government as early as 1846 for the conveyance of mails between Panama, Callao, Valparaiso and intermediate ports. The line runs in conjunction with the Royal Mail Steam Packet company, and also the West India & Pacific and Pacific Mail companies' steamers, making a through mail communication between England and the United States, and the west coast of South America via the Isthmus. This Company gives a weekly service, the steamers arriving on Tuesdays and sailing on Saturdays, touching at all the principal ports to Valparaiso.

THE PACIFIC MAIL COMPANY'S steamers on the Pacific connect with those plying between New York and Colon, and the company also has through arrangements with the Royal Mail and West India & Pacific and Harrison Steamer companies. The lines operating on the Pacific embrace California and the intermediate Mexican and Central American ports. The steamers leave Panama on the 11th and 20th of each month regularly, thus connecting immediately with the steamers arriving at Colon on the 9th, 19th and 28th. The steamer of the 11th touches at Corinto, La Libertad, San José, Champerico, Acapulco, Manzanillo, San Blas and Mazatlan, reaching San Francisco on the 30th. That of the 20th calls at Punta Arenas, La Libertad, Acajutla, San José, Champerico, Acapulco and Mazatlan, reaching San Francisco on the 18th of the following month. This is called "The New York and San Francisco Through Line." The "Panama and Champerico" line steamers sail on the 10th and 29th, calling at Punta Arenas, San Juan del Sur, Corinto, Amapala, La Union, La Libertad, Acajutla, San José de Guatamela and Champerico, arriv-

ing at ultimate destination on the 20th and 30th respectively. The steamers of the "Acapulco" line sail on the 30th, calling at all the foregoing ports and going on the Ocos, San Benito, Tonalá, Salina Cruz, and Port Angel, reaching Acapulco on the 18th of the month following.

The south bound steamers of the first line sail from San Francisco on the 15th and 30th of each month. That of the 15th calls at Mazatlan, San Blas, Manzanillo, Acapulco, Champerico, San José de Guatemala and La Libertad, reaching Panama on the 4th and connects with the steamer leaving Colon on the 5th. The steamer of the 30th calls at Mazatlan, Acapulco, Champerico, San José de Guatemala, Acajutla, La Libertad, Corinto and Punta Arenas, and arrives at Panama on the 20th and connects with the steamer leaving Colon on the 24th. The steamers of the "Champerico" line sail on the 10th and 20th, calling at all intermediate ports, and connect with the Colon-New York boats on the 5th and 16th. Those of the "Acapulco" line sail on the 30th, calling at all intermediate ports and connecting with the Colon-New York steamer of the 24th.

Landing Places.

At Colon passengers disembark and embark at the various docks that line the western side of the island, direct from their vessels. At only two points can embarkation be conveniently effected with small boats; these are at No. 7 dock and the pier of the railroad steamer *Alma*.

At Panama there is only one embarkation point, and no docks. The Pacific Mail steamers lie at the island of Flamenco and those of the Pacific Steam Navigation Co. at Taboga island. Passengers are conveyed to and fro in steam launches, leaving and reaching the shore by means of small boats, and at the only landing place—the Taller Steps, under the fine Hotel Marina and opposite the Governor's palace, which is reached by following eastward the street between Cathedral Plaza and the Grand Central hotel.

Fixed and Movable Feasts.

Most of the movable feasts depend on the feast of Easter, which is regulated by the full moon of the vernal equinox. The first Council of Nice, held in 325, decreed that the feast of Easter should be celebrated on the Sunday following the full moon, which falls either on the 21st of March (which was looked upon, at that time as the day of the equinox), or on the days following, till the 18th of April. Hence, if the full moon fall on the 21st of March, and this be a Saturday, the next day will be Easter-Sunday. But if it fall on the 20th this moon will not be considered the paschal moon: the next full moon only, which will be on the 18th of April, can be reckoned such. Should this 18th of April be a Sunday, Easter would be the Sunday following, or the 25th of April. Easter, then, can be no later than the 25th of April, nor earlier than the 22d of March.

The movable feasts are the Septuagesima Sunday, Ash Wednesday, Easter Sunday, Ascension Day, Whit-Sunday, Corpus Christi.

The fixed or immovable feasts are: Epiphany, on the 6th of January; Annunciation Day—Lady Day, March 25; Nativity of St. John the Baptist, June 25; St. Peter and St. Paul, June 29; St. James, July 25; St. Bartholomew, Aug. 24; St. Matthew, Sept. 21; St. Michael, the Archangel, Sept. 29; St. Luke, Oct. 18; St. Simon and St. Jude, Oct, 28; All Saints Day, Nov. 1; Commemoration of all the Faithful departed, Nov. 2; St. Andrew, Nov. 30; Conception of the Blessed Virgin Mary, Dec. 8;* St. Thomas, Dec. 21; Nativity of Our Lord, Dec. 25; Holy Innocents, Dec. 27; St. John, Apostle and Evangelist, Dec. 28.

Hydrographical.

The following are the latest corrections—made for the Hydrographical Bureau in Washington—in latitudes and longitudes—by the aid of the telegraphs laid to the West Indies and Panamá. The places are all north of the equator, and the longitudes are calculated West from the Greenwich Observatory.—Habana (Morro Lighthouse), Lat. 23 deg. 9 min. 20.98 sec.; Long. 82 deg. 21 min. 30 sec. Santiago de Cuba (Blanca Battery), Lat. 20 deg. 0 min. 15.4 sec.; Long. 75 deg. 50 min. 30.15 sec. Kingston (Port Royal Flagstaff), Lat. 17 deg. 55 min. 55.8 sec.; Long. 76 deg. 50 min. 37.8 sec. Colon (Lighthouse), Lat. 9 deg. 22 min. 8.8 sec.; Long. 79 deg. 54 min. 44.7 sec. Panamá (South tower of the Cathedral), Lat. 8 deg. 57 min. 6.15 sec.; Long. 79 deg. 32 min. 12.3 sec. San

* The catholics consider the Blessed Virgin Mary "conceived without sin," the patroness of the United States. The feast of the Conception is solemnised on the Sunday within the octave.

Juan de Puerto Rico (Morro Lighthouse), Lat. 18 deg. 28 min. 55.86 sec.; Long. 66 deg. 7 min. 27.75 sec. St. Thomas (Fort Christian), Lat. 18 deg. 20 min. 23.15 sec.; Long. 64 deg. 15 min. 52.5 sec. Santa Cruz (Lang's Observatory), Lat. 17 deg. 44 min. 42.7 sec.; Long. 64 deg. 41 min. 17.4 sec. St. Pierre, Martinque (St. Martha Battery), Lat. 14 deg. 43 min. 58.9 sec.; Long. 61 deg. 11 min. 11.7 sec. Bridgetown, Barbados (Rickett's Battery), Lat. 13 deg. 5 min. 42.5 sec.; Long. 59 deg. 37 min. 13.45 sec. Port Spain, Trinidad (Water battery), Lat. 10 deg. 38 min. 39.21 sec.; Long. 61 deg. 30 min. 38.4 sec.

Highest and Greatest Mountains in the World.

NAME	COUNTRY	Feet High	Miles
Mt. Everett (Himalayas)	Thibet	29,002	5¾
Sorrato, the highest in America	Bolivia	21,284	4
Illimani	Bolivia	21,145	4
Chimborazo	Ecuador	21,422	4¼
Hindoo-Koosh	Afghanistan	20,600	3⅞
Demavend, highest of Elburz Mts	Persia	20,000	3¾
Cotopaxi, highest volcano in world	Ecuador	19,496	3¾
Antisana	Ecuador	19,150	3½
St. Elias, highest in North America	Alaska	17,850	3⅜
Popocatapetl, volcano	Mexico	17,540	3⅜
Mt. Roa, highest in Oceanica	Hawaii	16,000	3
Mt. Brown, highest peak of R'ky Mts	Brit. America	15,900	3
Mont Blanc, highest in Europe, Alps	Savoy	15,782	3
Mt. Rosa, next highest peak of Alps	Savoy	15,150	2⅞
Limit of perpetual snow at the	Equator	15,207	2⅞
Pichincha	Ecuador	15,924	3
Mt. Whitney	California	14,887	2¾
Mt. Fairweather	Alaska	14,500	2¾
Mt. Shasta	California	14,442	2¾
Mt. Ranier	Wash. Territory	14,444	2¾
Long's Peak, Rocky Mountains	Colorado	14,271	2¾
Mt. Ararat	Armenia	14,320	2⅝
Pike's Peak	Colorado	14,216	2⅝
Mt. Ophir	Sumatra	13,800	2⅝
Fremont's Peak, Rocky Mountains	Wyoming	13,570	2⅝
Mt. St. Helens	Wash. Territory	13,400	2½
Peak of Teneriffe	Canaries	12,182	2⅜
Miltzin, highest of Atlas Mountains	Morocco	11,500	2
Mt. Hood	Oregon	11,225	2
Mt. Lebanon	Syria	10,583	2
Mt. Perda, highest of Pyrenees	France	10,950	2
Mt. Ætna, volcano	Sicily	10,835	2
Monte Corno, highest of Apennines	Naples	9,523	1¾
Sneehattan, highest Dovrefield Mts	Norway	8,115	1½
Pindus, highest in	Greece	7,677	1½
Mount Sinai	Arabia	6,541	1¼
Black Mountain, highest in	North Carolina	6,760	1¼
Mount Washington, highest White Mts	New Hampshire	6,285	1¼
Mt. Marcy, highest in	New York	5,402	1
Mt. Hecla, volcano	Iceland	5,104	1
Ben Nevis, highest in Great Britain	Scotland	4,406	⅞
Mansfield, highest of Green Mts	Vermont	4,280	⅞
Peaks of Otter	Virginia	4,260	⅞
Mt. Vesuvius	Naples	4,253	⅞
Round Top, highest of Catskill Mts	New York	3,804	¾

The Longest and Greatest Rivers in the World.

Name	Miles
Amazon	3,500
Nile	3,000
Missouri, to its junction with the Mississippi	2,900
Missouri to the sea, forming the longest in the world	4,100
Mississippi, proper	2,800

Name	Miles
Lena	2,600
Niger, or Joliba	2,600
Obe	2,500
St. Lawrence	2,200
Madeira	2,000
Arkansas	2,000
Volga	2,000
La Plata, over	2,000
Rio Grande	1,800
Danube	1,600
Orinoco	1,470
St. Francisco	1,300
Columbia	1,200
Nebraska	1,200
Red River	1,200
Colorado in California	1,100
Yellow Stone	1,000
Ohio	950
Rhine	950
Kansas	900
Tennessee	800
Red river of the north	700
Cumberland	600
Alabama	600
Susquehanna	500
Potomac	500
James	500
Connecticut	450
Delaware	400
Hudson	350
Kennebec	300
Thames	288

Size of Lakes, Seas, and Oceans.

Lakes	M. Long	M. Wide	Seas	M. Long
Superior	380	120	Mediterrean	2,000
Michigan	330	60	Caribbean	1,800
Ontario	180	40	China	1,700
Champlain	128	12	Red	1,400
Erie	270	50	Japan	1,000
Huron	250	90	Black	932
Cayuga	36	4	Caspian	640
George	36	3	Baltic	600
Baikal	360	35	Okhotak	600
Great Slave	300	45	White	450
Winnipeg	240	40	Aral	250
Athabasca	200	20	Oceans	M. Square
Maracaibo	150	60	Pacific	80,000,000
Great Bear	150	40	Atlantic	40,000,000
Ladoga	125	75	Indian	20,000,000
Constance	45	10	Southern	10,000,000
Geneva	50	10	Arctic	5,000,000
L of the Wo'ds	70	25		

The Titicaca, in Bolivia, is 12,600 feet above the sea level, with an extent of 8,220 square miles; its greatest depth upwards of 700 feet.

Consular Officers.

The duties of such officers are mainly to protect and promote the commercial interests of their respective countries at the ports or places where they reside. In later years, however, the scope of their duties has been enlarged, it being required of them to exercise to some extent diplomatic powers for the protec-

tion of their fellow citizens or subjects, and frequently those of friendly powers who have no representative of their country accredited in their respective districts. Such limited diplomatic powers are exercised by a consul only where no diplomatic agent of his country is accredited. In some non-christian countries, like Egypt and the Barbary powers, consuls are clothed with diplomatic functions; and in others, like China and Japan, with judicial powers. Having in view to remove doubt as to the functions of consular officers, which were not clearly defined under international law, nations enter nowadays into especial conventions distinctly setting forth the immunities and extent of consular authority. A consular officer of whatever rank must obtain an exequatur from the supreme government in whose territory he is to reside before he can enter upon his duties. Consuls are usually clothed with certain notarial powers; but some nations, like Mexico, have refused to grant them. The various grades in the consular service are consul-general—this commision being often attached to that of a minister resident, or a chargé d'affaires; vice-consul-general, consul, vice-consul, commercial agent, and vice-commercial agent, consular agent and consular clerk. The United States have also the deputy-consul-general and deputy-consul, who acts under such limited authority as his chief may confer on him. This deputy generally acts as vice-consul-general or vice-consul, as the case may be, when his chief is absent from his post. Some nations have a chancellor attached to each principal consulate, whose duties seem to be to look after the records, accounts, etc. Great Britain has, in some places, pro-consuls, an office usually conferred on the consul's or vice-consul's clerk. The pro-consul's duties are limited to the performance of notarial acts. A consul-general ranks with the junior commodore of the navy, and when visiting a man-of-war receives a salute of nine guns; a consul ranks with a junior post-captain or colonel, and is entitled to a salute of seven guns; a vice-consul is saluted with five guns. The United States compensate their consuls' services at some places with salaries and at others with bare fees.

The consular service is a regular career with some European nations. It is not so with the United States or other American nations.

Information Officers.

The Argentine government maintains information officers abroad, working with due regularity and furnishing whatever data are required respecting the laws, usages, and wealth of the republic. The general inspector at Paris telegraphs to the chief newspapers throughout Europe all important news respecting the country. Every office has a collection of specimens of Argentine products. These offices are visited by numerous persons, and in many of them an increase of the staff became necessary in order to furnish the written or verbal information called for. A permanent museum has been established at Buenos Aires of Argentine productions, both in the raw material, or in the first and second state, comprising the mineral, vegetable, and animal products of all the provinces and territories, the similar foreign products, and the wrappers and labels used for them respectively.

Drainage of the Valley of Mexico.

The municipality having been duly empowered to increase the octroi duties for the purpose of providing sufficient funds for the drainage of the valley of Mexico, that work has been since prosecuted with activity. It will be borne in mind that the only receptacle for its drainage matter, since the city of Mexico was founded, has been the Texcoco lake, whose level is only one metre below that of the principal plaza. In late years the depth of water has been steadily decreasing—the lake itself having been filling up with drainage matter—thereby causing an increase in the death rate. The plan of drainage finally adopted is to make a tunnel through the range of hills forming the northern boundary of the valley, by which means a fall of several hundred feet will be obtained; and by utilizing the waters of the other three lakes, which are on higher levels than the Texcoco, a perfect current will be obtained to flush the city drains as often as may be necessary. The cost of the work is estimated at four to five million dollars.

Nicaragua Canal.

The legislature of Vermont, one of the United States, has recently granted a charter to a company who propose to construct the canal under the franchise of the Nicaraguan government. The

work of survey and locating the route was completed some time ago, and the parties interested assured the legislature they were ready to begin upon the construction as soon as they obtained a charter.

The projected canal, if constructed, would secure a saving in distance and time as follows:

	Miles	Gain for Sail Ships	Gain for Fr't Steamers
		Days	Days
From New York to Hongkong	2,450	27	12
" " " Yokohama	4,200	40	21
" " " Callao	4,800	52	22
" " " Honolulu	7,100	67	35
" " " San Francisco	7,370	72	37

The construction of the canal will establish at once in the lake, in addition to the water transit between the two oceans, an interior fresh-water harbor within a few hours of either ocean, provided with a well appointed dock-yard and other facilities for coaling, loading, and unloading, etc., together with hospital sites and camping ground for the crews of vessels close to the fleet's anchorage, well above the fever line, on the mountain slope, in a bracing and healthful air.

Longest and Shortest Days at Various Capitals.

PLACE	Length of the Longest Day	Length of the Shortest Day	PLACE	Length of the Longest Day	Length of the Shortest Day
	H M	H M		H M	H M
Stockholm	18 30	5 54	Madrid	15 0	9 14
Copenhagen	17 20	6 54	Cairo	14 0	10 10
St. Petersburgh	18 44	5 42	Naples	15 8	9 14
Berlin	16 38	7 40	Constantinople	15 4	9 12
London	16 32	7 44	Calcutta	13 26	10 42
Edinburgh	17 32	6 50	Pekin	14 58	9 16
Dublin	16 56	7 18	Boston	15 16	8 58
Amsterdam	16 44	7 33	Cape Town	14 22	9 48
Vienna	15 58	8 17	Washington	14 52	9 22
Paris	16 6	8 10	Panama	12 36	11 84

Number of Miles by Water from New York to—

Amsterdam	3,510	Kingston	1,640
Bermudas	660	Lima	11,310
Bombay	11,574	Liverpool	3,210
Buenos Aires	7,110	London	3,375
Calcutta	12,425	Madras	11,859
Canton	13,900	Naples	4,330
Cape Horn	8,115	New Orleans	2,045
Cape of Good Hope	6,830	Panama	2,856
Columbia river	15,965	Pekin	15,825
Constantinople	5,140	Rio Janeiro	3,340
Dublin	3,225	Round the Globe	25,000
Gibraltar	3,900	Sandwich Islands	15,900
Hamburg	3,775	San Francisco	15,858
Habana	1,420	St. Petersburg	4,420
Havre	3,210	Valparaiso	9,750

Volaptik.

The convenience of a universal language is generally recognized. With the view of providing one, a German catholic priest, Father Johann M. Schleyer, invented Volaptik, and made it known to the world in 1879.

The language has no artificial genders, no irregular verbs, and only one conjugation. There are 14,000 words and by composition any word can be formed. Sounds common to all languages are only used in order to avoid difficulties of spelling and pronunciation. Every word is accented on the last syllable; the orthography is phonetic. Many persons in Europe and in the United States are acquiring this language, which is exceedingly simple, with the view of its becoming a medium of correspondence between people of different nations.

European Languages.

According to Mulhall, who published a statement of statistics of language in 1886, the following comparison is made, showing the superior growth—or spread would be the better word—of the Anglo-Saxon tongue during the first 83 years of the present century.

Languages	Number of Persons spoken by		Proportion of the whole	
	1801	1883	1801	1883
English	20,521,000	99,861,000	12.9	27.1
French	31,448,000	47,818,000	19.6	13.0
German	30,818,000	68,826,000	18.4	18.6
Italian	15,070,000	29,873,000	9.2	8.1
Spanish	26,194,000	40,835,000	16.0	11.4
Portuguese	7,480,000	12,810,000	5.0	3.5
Russian	30,770,000	66,725,000	18.9	18.3
Total	161,805,000	366,748,000	100.0	100.0

Accommodations.

Hotels are not so abundant in Mexico and in the other Spanish American countries as in the United States; and in very few places are such establishments kept on the same plan as in the last named country. In most of them they are scarcely better than inns; that is to say, a house where a traveller is afforded lodging and food, though some of them are quite comfortable and furnish a fine table.

In Mexico, even in the best establishments of the kind the accommodations cannot begin to compare with those of a first-class hotel in the United States; most of them are kept on the European plan. In Monterey and other towns near the Texas frontier, the hotels conform more with the American style. For hotel business two-storied houses are usually selected. The people of Mexico are not much given to travelling any great distance from their homes; hence there are towns of 10,000 to 15,000 inhabitants remote from the general lines of travel, where no inns are kept. The General Diligence company has under its control many inns or taverns in the central parts of the country. There are hotels for tourists, and mesones and posadas for men and live stock; the posada affords accommodations for man and beast, and the meson furnishes the food. Bath rooms are not to be found in the hotels; but very good bath houses exist in the principal cities; the best being those in Orizaba, Pueblo, and San Luis Potosi. Hot air furnaces, watea-pipes, electric bells, gas, and other modern conveniences are nearly unknown. Fire places do not

exist in Mexico; in the capital the people object to them, alleging that they are dangerous to health in the rarefied air of the plateau. First-class houses throughout the country charge from $2 to $2 50 per day; in the city of Mexico the rates are higher. A good dinner can be had in the capital at a first-class restaurant for $1; in other places the usual price is 50 cents; in the outside towns 25 cents.

In Central America hotels are generally poorly kept. There are some, however, which afford comfortable quarters and a good table at Quezaltenango and Guatemala city; there are nice bath-rooms in the latter. The objection found by foreigners to the bill of fare of a Guatemala hotel is its sameness from day to day, although there is enough and a variety at breakfast or dinner; for breakfast, soup, eggs, cold beef or mutton from the previous day; beefsteak, generally with onions, beans and fritters; for dinner, soup, rice, beef, cabbage, turkey or chicken, roast beef, salad, cheese, sweetmeats, etc. Food is cheap in Guatemala. Hotels and restaurants are usually kept by Frenchmen or Germans. Foreigners are recommended to avoid fondas kept by natives. This is pretty much the same fare that a tourist may expect to have laid before him at almost every inn of the better class in the chief towns of Central America. In travelling through small towns remote from the general lines of travel, he must put up with tortillas and frijoles and perhaps a little meat, or a chicken; milk he cannot get.

In Colombia there are no hotels worth mentioning, except in Panamá and Colón, which towns are under foreign influences in many respects. Even Bogotá, the national capital, with its population of 100,000, can only boast of a few restaurants (fondas) for genteel people, and tambos for the peons. There is not much travelling in the country, and the few strangers who occasionally visit the capital or other chief towns are mostly provided with letters of recommendation to the acquaintances of their friends, who hospitably entertain them. There has been for some years past a boarding house kept at Bogotá by an American lady. The valley of Bogotá is very rich; the production of fruit is almost unlimited both in quantity and variety. The streams are full of fish; the mountains full of game; but the people prefer bacon and codfish cooked after their own fashion. Panamá and Colón boast of fine hotels and restaurants; but living is very high. Venezuela does not offer many advantages in the way of hotel accommodations to strangers; but the variety of fare is quite satisfactory, and the cooking palatable. Breakfast is usually the most elaborate meal of the day and is served at about eleven o'clock; the menu consisting of soup, fish, game, steaks, plantains, vegetables, sweetmeats, wine, cheese, coffee, milk, etc. The dinner is generally at five, and offers the same variety as the breakfast, with the exception that roasts are served instead of steaks; salads are often served also. The charge of the hotel at Caracas is four native dollars per day, or about $3.25 in American money. A first-class hotel providing the comforts that are found in American hotels could not but be highly appreciated. Such an establishment is much needed. Guayaquil and Quito have so-called hotels, but they are little better than posadas and fondas, though the traveller stopping at them gets good table fare and comfortable accommodations. Buenos Aires has very fine restaurants and cafés; every delicacy the world produces which is not indigenous to the country, is imported and served in the restaurants; lobsters, mackerel, shrimps, oysters, mutton, venison, and varieties of vegetables and fruits, sweetmeats and preserves are daily consumed in great quantities; the best of wine is also provided. The people having become epicurean, all these delicacies are catered to them, prepared by good cooks. And yet the hotels are poor, just like the average establishments of the kind to be found in most South American cities. They are also very irregular in their rates and seem to consider every American guest possessed of a plethoric purse, and he is expected to allow himself to be preyed upon without wincing. The bill of fare on the steamers running from Buenos Aires to Montevideo and up the Paraguay river is as good as that of any first-class hotel in the United States; claret and Rhine wine forming part of the fare without extra charge. Uruguay affords cheaper living than any other part of the world; beef and mutton being worth from 3 to 5 cts. a pound, fish 5 cts. a pound, partridges and similiar birds 10 cts each, chickens and ducks 15 cts each, and vegetables abound at low prices. The people of the country are wealthy and princely in their way of living. There is one hotel in Montevideo which is built of Italian marble and splendidly furnished. This establishment and the Gran Central of Santiago (Chili) are the best in South America. The markets of Asunción and other towns of Paraguay present a great variety of edibles at low rates and yerba maté is consumed in large quantities, as it is in all the Plate region. There is an intoxicating beverage, the chicha made of mandioca; that of Perú is made of the juice

of the sugar-cane and that of Chili of the juice of the grape. The Paraguayans drink chicha but are far from being intemperate. In public places they drink their yerba tea, which seems to improve them both mentally and physically. Hotels, or rather fondas y posadas in Paraguay, are of the most primitive kind. Perú possesses very fine cafés and restaurants and passable hotels, where a traveller will be well treated and furnished a good table; but there is nothing to compare with the Hotel Oriental of Montevideo.

Chili is more advanced than Peru in many respects. The people are prosperous and rich; there is, besides, a large foreign element which is rich; and living in Valparaiso and Santiago is of the most extravagant. Restaurants and cafés are abundant, and afford all the luxuries which may be found in the largest cities of Europe or America. A new hotel in Santiago is pronounced by foreigners, who had lodged in other establishments, the finest ornament of the city. The furniture was brought from France at an expense of about $300,000; and with it came a cook at $5,000 a year. The rooms have grates for fires, are as handsomely furnished as at the best New York hotels, and the restaurant is a first-rate one. The fault to be found with the arrangement is that the bar is in the ladies' lunch rooms. This is the only hotel bar in all South America. Ladies and gentlemen sit at tables to take their drinks and it is said to be quite fashionable for the former to drink cocktails in the barroom of the Grand Central hotel. Bolivia has nothing to boast of in the line of accommodations for travellers, beyond the usual posadas and fondas existing in most South American towns.

In Brazil, hotels are poor affairs. Rio de Janeiro boasts of a few small ones, which are usually full, and a stranger will most generally find it difficult to obtain accommodation. The meat and fish of the place are not good; the fruits, on the contrary, are hardly equalled anywhere else for their excellence. The Brazilian cuisine generally will not suit Americans.

Grease and garlic are too freely used in the preparation of dishes. Jerked beef, salt codfish from the United States and Nova Scotia, and beans are seen on every table; the Brazilians preferring such codfish to the fresh fish of their own waters. There is no reason why large cities of the empire, particularly the capital, should not have first-class hotels. Rio possesses some fine coffee houses, and French restaurants.

Cuba and Porta Rico have fine markets, and do not lack for very good cooks. Some of the native cooks are excellent. There are in Habana, Matanzas, etc., some very fine Spanish restaurants or fondas, which cater real delicacies to their patrons. French restaurants serve meals in French style.

As a general rule beef is not very good; mutton is sometimes good; pork is not excelled anywhere. The waters of Cuba abound in fine fish, and the Habana market is usually well supplied with fish not only from the island's waters, but from those of Florida and Yucatán. Habana has some fine hotels and boarding houses, where travellers can have accommodations, and table bill of fare to suit their tastes and means. There are certain dishes which rarely fail to be on every private table in the island, tasajo or jerked beef with tomato sauce and a touch of hot peppers, salt codfish, boiled rice, black beans, and plantains. The agiaco, an aboriginal dish but very much improved, is a favorite of the creoles, and of many who are not to the manor born. The city of Habana has many cafés, and casinos or clubs, which are largely frequented.

Comfortable accommodations for strangers are afforded in nearly all the principal towns of the West Indies, as well as in the capital of the Bermudas.

American Chronology.

Hereinunder are given the dates of some of the most important events in the history of the countries embraced in this Manual:

1474 Ferdinand and Isabella proclaimed kings of Castile.
1479 Ferdinand becomes king of Aragon.
1480 The Inquisition established.

1492 Granada taken by the Christians. End of Moorish domination in Spain. Columbus sails on his first voyage, August 3d. He lands at San Salvador, (Cat island, one of the Bahamas, generally supposed to be the Guanamani), October 12th.
1493 Columbus' second voyage. Pope Alexander VI "fixes the line of demarcation" between the Spanish and Portuguese possessions. Santo Domingo city founded under the name of Isabella.
1493 Porto Rico discovered.
1494 Jamaica discovered.
1496 Florida seen by Sebastian Cabot.
1497 Newfoundland discovered; the mainland of America discovered by the Cabots.
1498 Columbus' third voyage; he reaches the mainland of America.
1499 Mainland of America reached by Alonso de Ojeda and Amerigo Vespucci.
1500 Charles I of Spain, 5th of Germany, born.
1500 Brazil discovered by Vicente Yañez Pinzón.
1501 Columbus taken to Spain in chains.
1502 Columbus' fourth voyage to America.
1504 Queen Isabella, the catholic, dies.
1506 Columbus' death, May 20th.
1509 Porto Rico's governor, Juan Ponce.
1510 Cuba conquered by the Spaniards.
1511 Cuba's first governor, Diego Velazquez.
1512 La Plata river discovered by Juan Díaz de Solís.
1513 Pacific ocean seen by Vasco Nuñez de Balboa, who takes possession of it. He is beheaded by Pedrarias Dávila at Acla, 1517.
1514 Reino de Castilla del Oro (Panamá isthmus, and Venezuela) constituted; Pedrarias Dávila, governor.
1515–1517 Gov. Dávila's expeditions.
1515 Habana (San Christóbal de la) founded where Batabanó now is; transferred later to its present site.
1516 Ferdinand, the catholic, dies January 23d. Charles I succeeds, reigning jointly with his mother Juana; after a while he reigns alone.
1517 Yucatan discovered.
1518 Juan de Grijalva's voyage; discovers Tabasco, and the coast of Vera Cruz.
1519 Tenochtitlan-Mexico taken by Hernán Cortés in November.
1519-23 Gil Gonzalez in Costa Rica and Nicaragua.
1520 Magellan straits crossed by Magalhaes, November 28th.
1520 Cortés leaves Mexico in July.
1521 Mexico besieged, bombarded, and captured by Cortés; May to August.
1522–1821 Spanish domination. Mexico under governors, Cortés, and others, 1522-27; under the first audiencia, President Nuño de Guzman, 1527–31; under the second audiencia, President Sebastian Ramirez de Fuenleal, 1531–35; under viceroys, 1535–1821.
1522 Magellan's first voyage around the world.
1522–24 Guatemala and Salvador conquered by Pedro Alvarado.
1524–25 Honduras colonized.
1525 Buccaneers begin their piratical practices in the West Indies about this time.
1526 Perú. Pizarro, and Almagro arrange for the conquest and partition of the country.
1527 The Bermudas discovered by Juan Bermudez.
1527 La Plata river. Sebastian Cabot's journey on it.
1531–33 Perú taken possession of by Pizarro and Almagro. Atahualpa put to death in 1533.
1531 Brazil. Settlements by the Portuguese.
1535 Buenos Aires founded by Pedro de Mendoza; subsequently abandoned; refounded in 1542 by Cabeza de Vaca; abandoned a second time in 1543; founded a third time in 1580.
1535. Guayaquil founded.
1535–36 Chili. First invasion of by Almagro.
1537 Queen Juana's death.
1538 Habana destroyed by a French pirate; destroyed a second time in 1554 by buccaneers.
1541 Peru. Francisco Pizarro murdered in June.
1544 Peru. Gonzalo Pizarro's revolt; he is defeated and beheaded in 1547.
1550 Nicaragua. Revolt of Hernando and Pedro de Contreras. Murder of the bishop.

1550 Panamá. The Contreras invade Panamá; they are defeated and perish.
1550 Chili. Valdivia falls into the hands of the Araucanians, and is put to death.
1568 Hawkins invades Vera Cruz; is defeated; but he and Drake escape; September 14–24.
1585 Drake's expedition against the West Indies.
1586 Callao destroyed by an earthquake.
1595 Porto Rico. San Juan attacked by Drake.
1598 Porto Rico. San Juan captured by the English, who carried off much artillery.
1608 Paraguay. The Jesuits enter the country.
1616 Cape Horn. Van Schotten goes around it.
1629 United States. The Massachusetts Bay company chartered.
1629 Brazil. The Dutch occupy the Brazilian coast.
1630 Curaçoa wrested from the Spaniards by the Dutch. (Settled in the sixteenth century.)
1643–44 Brazil abandoned by the Dutch; the Portuguese retain full possession.
1655 Jamaica taken from the Spaniards by English, May 3d.
1657 St. Thomas colonized by the Dutch. (Discovered by Columbus, 1493.)
1658 Puerto Principe (Cuba) sacked and burnt by pirates.
1680 Mex. Tampico sacked by corsairs.
1683 Mex. Vera Cruz sacked by the buccaneers in May.
1692 Jamaica. Earthquake sinks Port Royal, the capital, in less than three minutes, under the sea, June 7th.
1697 Santo Domingo, western portion, ceded to France by Spain.
1710 Quito, presidency, annexed to Nueva Granada.
1711 Rio Janeiro attacked by the French, captured, ransomed.
1723 Nueva Granada, viceroyalty: reduced to presidency, 1724; viceroyalty again in 1740.
1731 Venezuela detached from Nueva Granada; made a captain-generalcy.
1732 Washington born February 22d; died December, 1799.
1733 Santa Cruz island ceded to Denmark.
1744 Cotopaxi volcano, eruption.
1746 Lima earthquake, October 28th; Callao destroyed.
1752 Franklin (Benjamin) proves that lightning and electricity are identical.
1755 United States, then British colonies, great earthquake November 18th.
1762 Habana (Cuba) taken from the Spaniards by the English; returned next year, the conquerors receiving Florida in exchange.
1762 Louisiana ceded to Spain by France; possession taken in 1766; restored to France, 1800.
1767 Jesuits expelled from all Spanish America.
1775 United States; Boston besieged by Washington; the English abandon the city March 17, 1776.
1776 Buenos Aires, government of, formed.
1776 United States; Declaration of Independence, July 4th; in 1777 the national flag adopted, June 14th.
1781 Florida retaken by the Spaniards from the English.
1783 United States; independence recognized by Great Britain.
1783 Bolivar, Simón, liberator of South America, born; his death on December 17, 1830.
1789 United States; organized as a federal republic.
1789 Revolution of Santo Domingo.
1789 Washington, first president of the U. S., April 30th.
1803 United States, Louisiana sold to, by Napoleon,
1806 Buenos Aires captured by the English, June 27th; the invaders surrendered August 12th.
1807 Montevideo taken by the English in February.
1808 Buenos Aires attacked by the English, who are defeated, capitulate, and are allowed to leave.
1808–18 South America; movements which led to the independence.
1810 Mexico, Venezuela, and Nueva Granada; revolution which led to the independence.
1811 Hidalgo executed in Mexico, July 31st.
1811 Paraguay organized as a republic.
1812–15 War between the United States and Great Britain; peace concluded December 24, 1814; battle of New Orleans, January 8, 1815; the English utterly defeated.
1814 Bolivar, chief of Venezuela, January.

1815 Morelos, of Mexico, executed December 22d.
1817 Paraguay; Dr. Francia becomes dictator for life; he died September 20, 1840.
1818 Spaniards defeated at Maipo.
1818 Brazil erected into a kingdom.
1819 Colombia; republic created December 17th.
1821 Liberia, republic in Africa, founded.
1821 Mexico; independent. Agustin Iturbide crowned emperor May, 1822; abdicated March 20, 1823; banished to Italy; returned, and was executed July 19, 1824.
1821 Colombia; independence secured. Panamá threw off the Spanish rule, and joined Colombia.
1821 Brazil; revolutionary movements. Pedro I, emperor, October 12, 1822.
1821-24 Central America seceded from Spain September 15, 1821; is attached to the Mexican empire; recovered the independence in 1824.
1821 Florida ceded by Spain to the United States.
1821 Perú; independence of, proclaimed in July.
1822 South America; Great Britain sends consuls to the South American states October 30th.
1822 Chili; great earthquake.
1828 Brazil occupies Uruguay; war with Buenos Aires 1826-28; Uruguay abandoned by Brazil in 1828.
1823-24 Mexico ruled by a triumvirate.
1824 Mexico constitutes herself as a republic.
1824-26 Perú, Bolivar dictator of, February 10, 1824; he defeated the Spaniards at Junin August 6th of that year; they are again defeated by Sucre December 24th; end of Spanish domination in South America; Callao surrendered by the Spaniards January 22, 1826.
1825 Great Britain entered into treaties with La Plate, Colombia, and Mexico.
1825 Brazil's independence recognized by Portugal.
1825 Argentine republic constituted January 23d.
1825 Central American republic constituted.
1826 Brazil and Buenos Aires at war; peace restored August 29, 1828.
1826 Treaty between Great Britain and Brazil for the abolition of the slave trade.
1829 Buenos Aires; Juan Manuel Rosas became dictator.
1829 Spaniards under Barradas defeated on the Panuco river, Sept. 11th.
1830 Colombia republic disrupted; Venezuela constituted herself a republic September 14th; José Antonio Paez, first president; Paez born in 1790; died May 6, 1873.
1831 Brazil in revolution; Pedro I abdicated April 7th; his infant son proclaimed emperor as Pedro II; he still reigns.
1831 Nueva Granada constituted herself as an independent republic; Francisco Santander, first president; he had been vice-president of Colombia.
1831 Ecuador organized as a republic.
1831 Vicente Gurrero shot at Cuilapa, Feb. 14.
1835 Nicaragua; eruption of the Cosegüina, January 22d.
1835 Texas rebelled against Mexico in July; proclaimed her independence December 22d.
1835 Concepción destroyed the fourth time by an earthquake.
1836 Perú; General Salaverry executed.
1840 Central American republic disrupted; they remained as separate states for some time, and finally constituted themselves as independent republics.
1842 Ex-president Francisco Morasan of Central America executed in San José, Costa Rica.
1844 Dominican republic constituted.
1846-48 War between Mexico and the United States, on account of Texas' annexation to the latter; the Mexican capital taken; treaty of Guadalupe Hidalgo restored peace: the United States retained Texas and New Mexico; also California, by paying a sum of money for a clear title. The treaty was ratified May 19, 1848.
1849 Hayti became an empire under Soulouque, as Faustin I, August 26th; he was some years after deposed, and went into exile.
1850 Argentine Republic. The author of her independence, José de San Martin, died Aug. 17th (born Feb. 25th, 1778).
1851-52 Uruguay. Capitulation of Oribe at Montevideo, Oct. 7th, 1851; Urquiz, entered the city the next day; defeated Dictator Rosas of Buenos Aires.

Feb. 3rd, 1852, and occupied the city of Buenos Aires on the 4th; he is made provisional director of the confederation June 23rd and deposed Sept. 10th.

1852 Great earthquakes in California.

1853 Mexico; revolution in January. Santa Anna made president April 1st; he becomes a dictator; he left the country in disgrace Aug. 16–17. Santa Anna died in Mexico city June 21st, 1876.

1854 Earthquakes in Salvador; destruction of San Salvador.

1854 Mesilla valley, including Arizona, sold by Mexico to the United States.

1854 Guatemala. Rafael Carrera made president for life; he died in April, 1865.

1855 Panamá railroad inaugurated Jan. 28th.

1858 Mexico. Earthquakes with disastrous effects.

1858–61 Mexico. War between the liberals and conservatives; the former victorious; President Juarez enters the capital January 11th, 1861.

1861–62 Mexico. Foreign intervention. Occupation of Vera Cruz by Spanish forces Dec. 17th, 1861. French and English troops arrive in Jan., 1862. The French defeated before Puebla May 5th.

1859 Quito almost destroyed by an earthquake; 5,000 persons perished; March 22nd.

1860–65 Secession war in the United States; capture of the Southern capital, and surrender of the remnants of the rebel army early in 1865.

1861 Mendoza in the Argentine Republic overturned by an earthquake.

1862 Honduras. President Guardiola murdered.

1863 Colombia constituted as a federation of states.

1863 Dominican Republic. Spain takes possession, to relinquish it again in 1865.

1863 Mexico. Puebla taken by General Forey May 17th. The French enter the capital June 11th; Maximilian of Austria chosen emperor by the notables July 11th.

1864 Mexico. Maximilian arrives; assumes the crown; enters Mexico city June 12th.

1864 Venezuela assumes the federal form.

1865 President Lincoln, of the United States, assassinated April 14th.

1865 Jefferson Davis, president of the late rebel government in the United States, captured May 10th. African slavery formally abolished in the U. S. Dec. 18th.

1865 Brazil, Argentine Republic, and Uruguay form a coalition against Paraguay May 1st.

1865 Jamaica. Negro riots in Morant bay Oct. 11th.

1866 Peru and Chili at war with Spain. Defenceless Valparaiso bombarded, with great destruction of property, March 31st; Callao bombarded later, without the Spanish force accomplishing anything.

1867 French forces, recalled to France, cease operations and gradually leave Mexico. Maximilian in Querétaro Feb. 19th; the city soon after invested by the republicans; Puebla taken by Diaz' republicans, April 2nd, Querétaro captured by the republicans under Escobedo, May 14th; Maximilian a prisoner; Marquez, imperialist, routed by Diaz April 10th; Diaz invests the capital; Maximilian, Miramón, and Mejia shot on the Cerro de las Campanas June 19th.

1868 Asunción, Paraguay, occupied by the enemy's forces Feb. 21st; destruction of the Paraguayan army at Villeta Dec. 11th.

1868 Cuba's revolt for independence, Oct. Unsuccessful end in 1878.

1868 Ecuador. Destructive earthquakes; the whole southern half of the eastern coast of South America devastated Aug. 13–16.

1870 Paraguay. President Lopez defeated and put to death at Aquidaban March 1st.

1871–2 Brazil. Slave emancipation bill passed by the Senate Sept. 27th, United States; Alabama arbitration commission meets at Geneva Dec. 18th, 1871; its award, Sept. 14th, 1872.

1871 Central America. Overthrow of the clerico-oligarchy.

1872 Mexico. President Juarez died July 18th (born in 1809)

1872 Perú. President José Balta assassinated; his death avenged by the people of Lima.

1872 California. Destructive earthquake March 26th.

1873 San Salvador destroyed by earthquakes March 19th.

1875 Ecuador. President García Moreno murdered Aug. 14th.

1879–81 Chili against Perú and Bolivia. Lima occupied by the Chilians Jan. 1881. Peace concluded soon after; the Chilians leave the country. Perú loses territory; Bolivia loses all her sea-coast.

1880 Panamá canal works commenced.
1881 United States. President James A. Garfield assassinated.
1881 Patagonia. Dispute between Argentine Republic and Chili settled.
1882 Panamá Isthmus. Earthquakes Sept. 7th.
1885 Colón or Aspinwall burnt by Prestan March 31st; Prestan hanged at Colón Aug. 16th.
1885 Central America. President Barrios of Guatemala attempts restoring the union by force, he is defeated and killed in battle April 2d.
1886 Colombia. Federal system ceases; centralized régime established; new constitution Aug. 7th.
1886 Jesuits of Perú forbidden to live in community.
1886 New York. Bartholdi's Statute of Liberty unveiled Oct. 28th.
1888 Brazil. Slavery abolished in May.

Dates on which the American republics and Brazil declared their independence.

The United States	July 4, 1776
Colombia	July 20, 1810
Mexico	Sept. 16, 1810
Central America	Sept. 15, 1821
Venezuela	July 5, 1811
Ecuador	Aug. 10, 1819
Brazil	Oct. 12, 1822
Argentine Republic, Uruguay, Paraguay *	March 25, 1816
Perú	July 28, 1821
Chili	Sept. 18, 1816
Bolivia	July 28, 1824
Hayti	Jan. 1, 1804
Dominican Republic	Feb. 27, 1844

List of Authorities.

The following works, among many others, contain information on the various countries treated of in this Manual:

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* The three republics celebrate the 15th of May, having thrown off together the Spanish domination.

Navigation Laws; Wallace's Travels on the Amazon; Gorringe's Coast of Brazil; Hadfield's Brazil; Powles' New Grenada; Pezuela, Diccionario Geog., &a., Cuba; Bolivia; Descriptc. Hist. y Estadist; Dalence's Bolivia; Hugo Reck, Bolivia; Cortés, Bolivia; Cortés, Diccionario Biográfico Americano; Bonelli, Bolivia; Gallenga's South America; Id, Pearl of the Antilles; Uruguay, 1886; Vaillant's Statistical Publications; Mansfield's Paraguay; Schomburgh's British Guiana; Godet's Bermuda; Masterman's Seven Eventful Years, Paraguay; Palgrave's Dutch Guiana; Spence's Land of Bolivar; Orton's Andes and the Amazon; Smith's Brazil, 1879; Clement's La Plata, 1886; Boyd's Chili, 1881; A Journey in Brazil; Hazard's with pen and pencil on Cuba; Hazard's Santo Domingo, 1878; Courtney's Gold Fields; Ober's Camps in the Caribbee Islands, 1880; Ives', The Isles of Summer, 1880; Burchard's Production of Gold and Silver; Bolles' Financial History of the United States; Sickels' Mining Laws and Decisions, 1881; Hutchinson's Paraná; Sarsfield, Código Civil de la República Argentina; Ruschenberger, Three Years in the Pacific; Stewart's Brazil and La Plata; Kidder and Fletcher's Brazil and the Brazilians; Washburn's Paraguay, Page's La Plata; Rampini, Letters from Jamaica; Mauve's Travels in the interior of Brazil; Hand-book of Jamaica, 1887–88 Honduras (Brit.) Almanac, 1888; Ecuador, Informe del Ministerio de Hacienda, 1887, Costa Rica, Código Civil, y otros documentos impresos por su gobierno en 1887; Villavicencio, Rep. de Costa Rica; Calvo, Apuntam. sobre Costa Rica, 1886; Montero Barrantes, Geografia de Costa Rica, 1886; Anuario Estadistico de Costa Rica, por 1887; Código Civil de Panamá; Anuario Estadistico de Uruguay, 1888; Perú, Arancel de Aforos, 1886; and many letters from parties residing in the several countries.

THE END.

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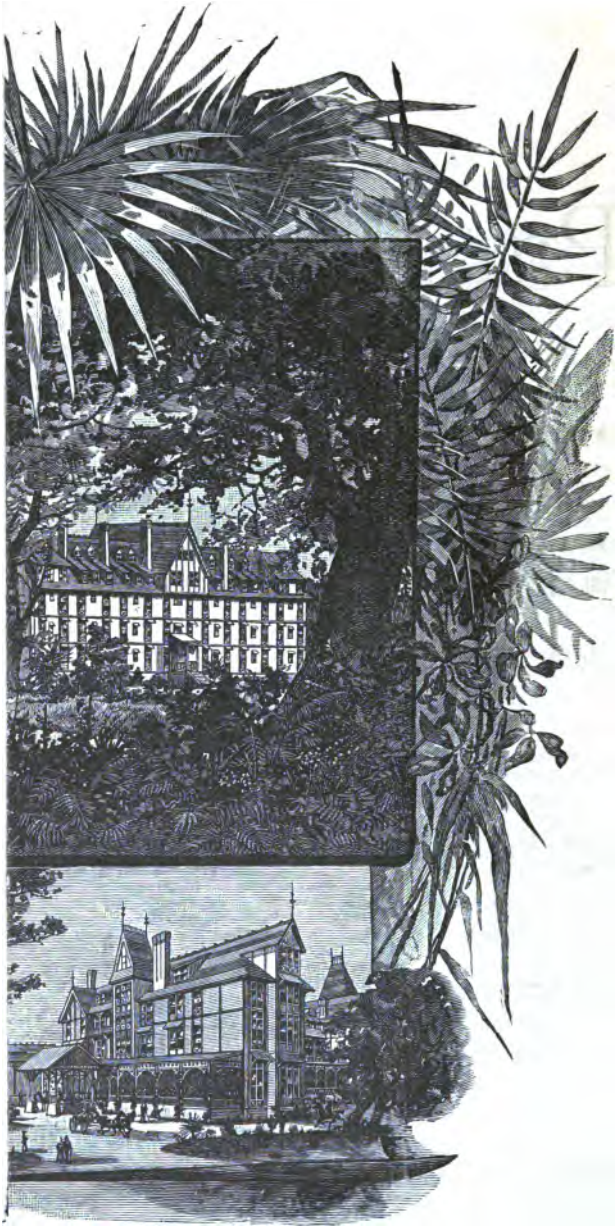

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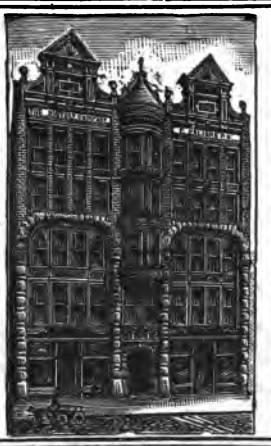

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